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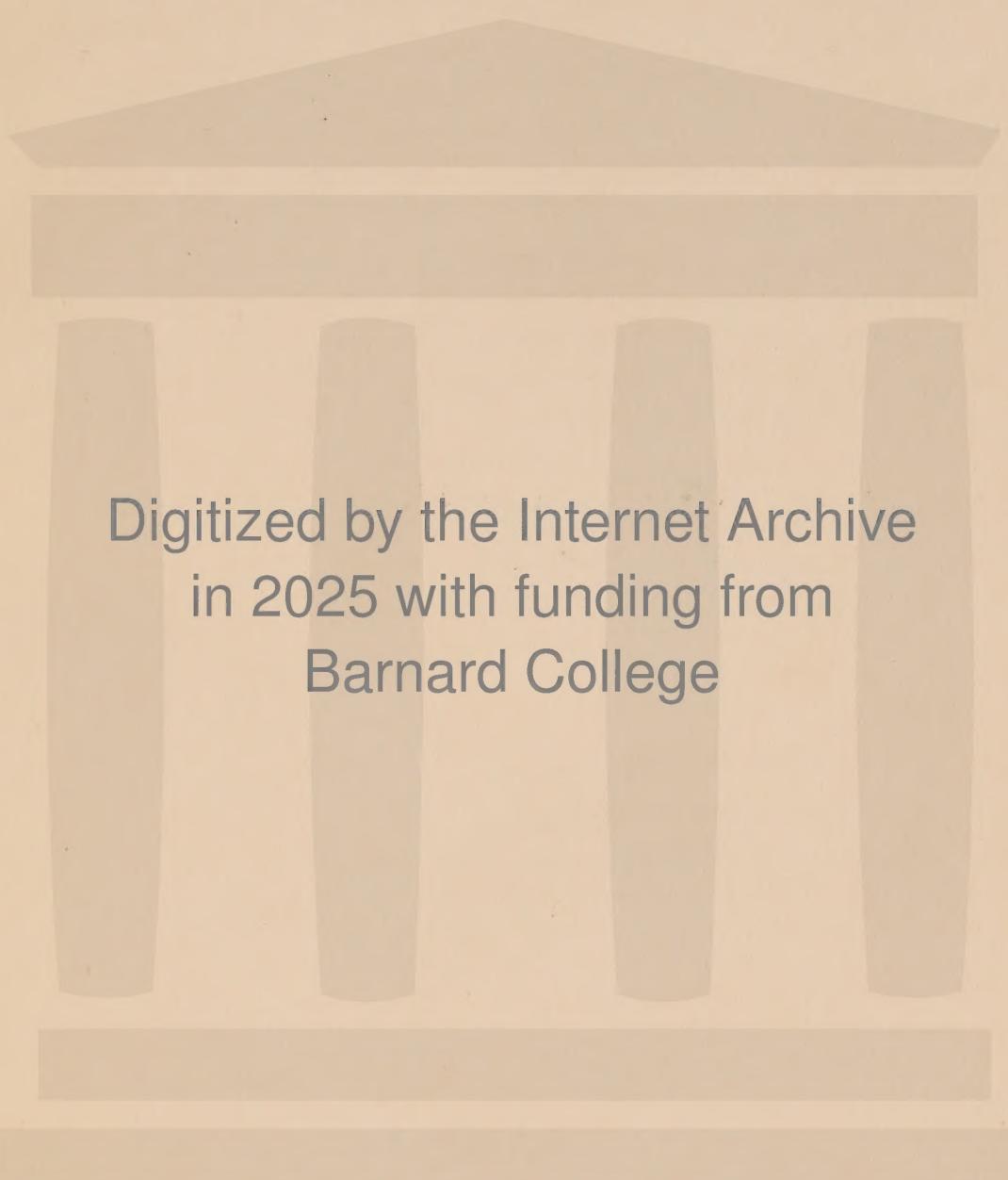
BARNARD COLLEGE

ANNOUNCEMENT

1914-1915

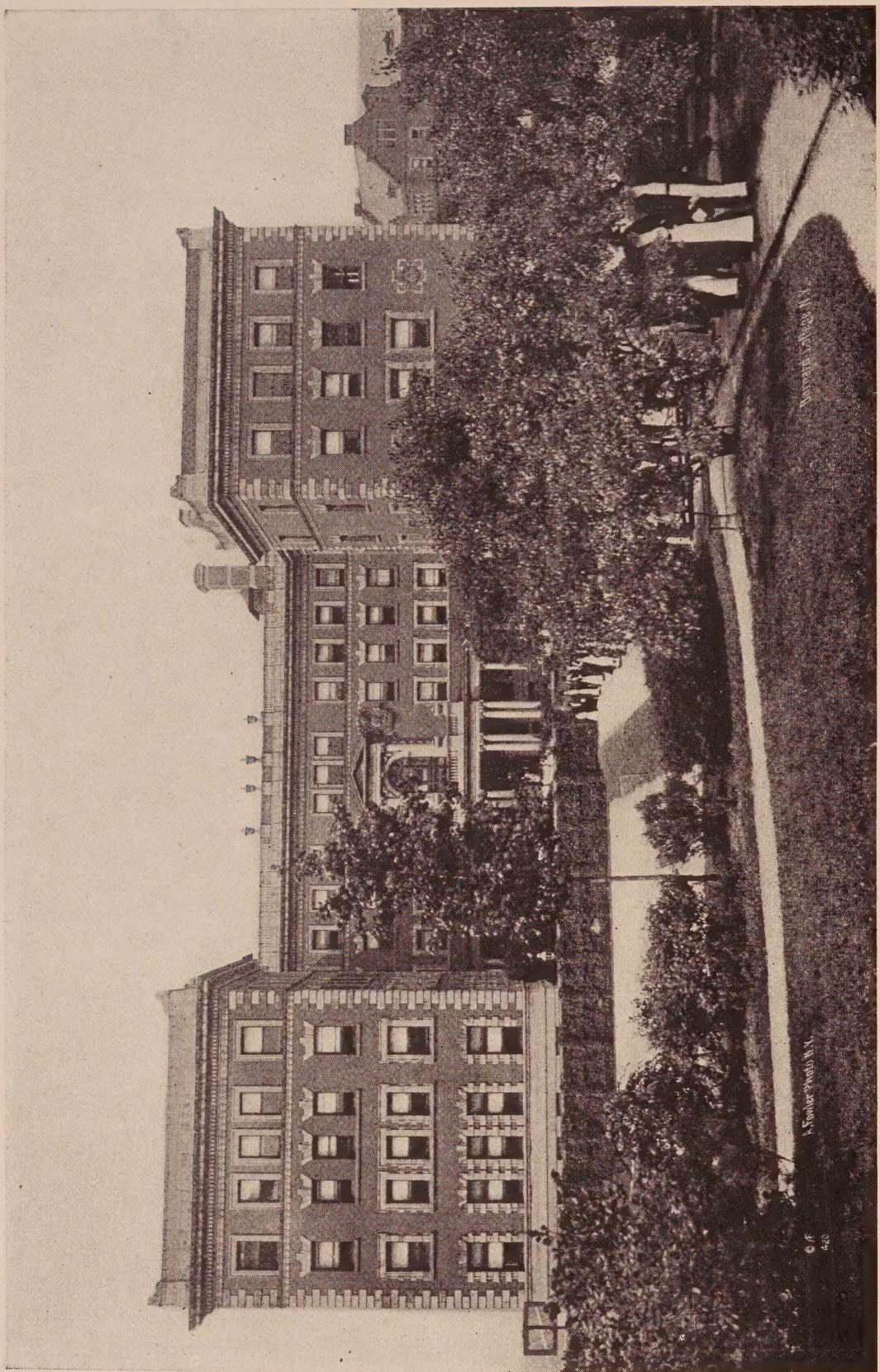
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Columbia University
Bulletin of Information

BARNARD COLLEGE

ANNOUNCEMENT

1914-1915

April, 1914

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¹ Absent on leave first half-year

² Absent on leave second half-year

³ Absent on leave 1914-15.

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THE RELATION OF BARNARD COLLEGE TO COLUMBIA UNIVERSITY

According to the agreement made January 19, 1900, between the Trustees of Columbia College in the City of New York and Barnard College, for the purpose of incorporating Barnard College, a college for women, in the educational system of the University, it is provided:

That the President of the University shall be, *ex-officio*, President of Barnard College and a Trustee of Barnard College. He shall preside at the meetings of the Faculty of Barnard College and shall have general supervision and direction of the educational administration of such College as in the other schools of the University.

That the internal administration of Barnard College shall be conducted by a Dean and a Provost who shall be appointed by the President of the University, by and with the advice and consent of the Trustees of Barnard College. In the absence of the Dean or the Provost, an Acting Dean or an Acting Provost may be appointed by the President.

That Barnard College shall be represented in the University Council of Columbia University by its Dean and its Provost, who shall have the right to vote in the University Council upon all questions. The Faculty of Barnard College shall consist of the President, the Dean, the Provost, and all the professors on the staff of the University who give instruction in Barnard College.

That Barnard College shall provide for and maintain such officers of instruction as may, from time to time, be agreed on. Such officers shall be nominated by the Dean of Barnard College, on consultation with the Provost, and with the approval of the Trustees of Barnard College and of the President of the University, and shall be appointed and reappointed by the University according to its custom. Their standing shall be the same in all respects as that of other like officers in the University. For all services rendered in the University by officers so appointed, an equivalent amount of service shall be rendered in Barnard College by other officers of the University of like grade, as may be determined from time to time, with the consent of the officers concerned, by the Dean of the College, on consultation with the Provost, and the President of the University.

That members of the Faculty of Barnard College may be either men or women.

That on and after July 1, 1904, all of the undergraduate instruction for women shall be given separately in Barnard College. Barnard College will assume as rapidly as possible all of the instruction for women in the senior year, without regard to the time limit contained in this section,

and undertakes to maintain every professorship established at its instance, so long as the services of the incumbent thereof or an equivalent therefor shall be rendered in Barnard College; and when Barnard College has adequately provided for its undergraduate work, it will, as its means allow, establish additional professorships in the University, upon foundations, providing for courses which shall be open to men and women, to the end that opportunities for higher education may be enlarged for both men and women.

That the University will accept women who have taken their first degree on the same terms as men, as students of the University, and as candidates for the degrees of Master of Arts and Doctor of Philosophy under the Faculties of Philosophy, Political Science, and Pure Science, in such courses as have been or may be designated by these Faculties, with the consent of those delivering the courses, and will make suitable provision for the oversight of such women.

That the University will confer the degree of Bachelor of Arts or Bachelor of Science upon any student of Barnard College who shall have satisfactorily fulfilled in Barnard College the requirements of the University Statutes for that degree. The courses in Barnard College leading to the degree of Bachelor of Arts or Bachelor of Science shall be determined and administered by its own Faculty, and all examinations for admission to Barnard College and in course shall be conducted under the authority of the Faculty of Barnard College. The diploma shall be signed by the President of the University and by the Dean of Barnard College. The degrees conferred upon the graduates of Barnard College shall be maintained at all times as of equal value with the corresponding degrees conferred upon the graduates of Columbia College. The equivalency of the two degrees shall be maintained in such manner as the University Council may prescribe.

That, so long as this agreement is in force, Barnard College shall grant no degrees. It shall retain the right to grant certificates to students not candidates for a degree, and it shall exercise all other corporate rights and powers which are not delegated to the University by this agreement. But this agreement shall not be deemed a surrender by Barnard College of any powers conferred upon it by charter.

That Barnard College shall retain its separate corporate organization, and that the Trustees of Barnard College shall continue to provide for the financial support thereof.

That the library of the University shall be open to all women students of the University and of Barnard College upon the same terms as to men.

The opportunities open in other schools of the University to students of Barnard College who wish to avail themselves of the advantage of professional training are explained in detail on pages 59-61.

Barnard College

GENERAL STATEMENT

Barnard College offers two distinct liberal courses of undergraduate instruction for women, each of four years' duration, but differing widely in aim and leading to different degrees.

Courses of Study The literary course requires the study of Latin for entrance and also in college, embraces such general subjects as are deemed essential to a liberal education, requires a major subject equivalent to a three-hour course throughout three years, and leads to the degree of Bachelor of Arts.

The science course allows the substitution of scientific and advanced subjects in place of the entrance Latin, embraces such general courses as are considered essential to any liberal education, requires a major and two minor subjects in pure science amounting to seventy points of college work, and leads to the degree of Bachelor of Science.

A general two-years' course, not leading to a Barnard degree, is arranged to give the cultural basis in literature, languages, history, and natural science for work in certain professional schools of the University. (See **Academic Discipline** p. 57.)

Under the statutes all students are admitted subject to the disciplinary power of the University.

ADMISSION

Admission to Barnard College is obtained only by examination, except that in suitable cases the certified credentials of degree-granting institutions may be accepted for the subjects or parts of subjects which they cover.

Except for reasons of weight, candidates for admission to the freshman class must be at least fifteen years of age at the time of matriculation; candidates for admission to advanced standing must be correspondingly older. Every candidate must, before admission, present a certificate of good moral character from her last teacher, or from some properly qualified citizen. Students from other colleges or universities must present certificates of honorable dismissal.

Information regarding admission may be obtained in person, or by mail or telephone, from the Secretary of Barnard College.

ADMISSION TO THE FRESHMAN CLASS

In order to enter the freshman class a candidate must satisfy the College as to:

- I. Adequate preparation in the subjects required for admission (p. 17);

2. The possession of the qualities of mind and character deemed requisite for the most profitable pursuit of a college course;

3. Sound health.

It should be clearly understood that the satisfaction of any one or two of these requirements alone does not entitle the candidate to admission.

1. Evidence of adequate preparation in the subjects required for admission must be: examination and school record.

The following examinations may be offered in partial fulfilment of the requirements for admission: those given by the College Entrance Examination Board (p. 20), by Columbia University (p. 20), and, under certain conditions, those given by the Education Department of the State of New York or by other colleges (see p. 24).

The results of a candidate's examinations may stand to her credit for twenty-nine months but no longer.

She may not present herself at more than four series of examinations except by special permission of the Committee on Admissions.

In making application for examination a candidate must file with the Secretary of Barnard College, for the use of the Committee on Admissions, a statement from the principal of her school or from her last instructor indicating the extent and character of her preparation in each subject in which she applies for examination. The Committee on Admissions may withhold credit when this requirement is not met, and will give weight, in estimating the results of the candidate's entrance examinations, to the record of her school performance. Blanks for school records may be obtained from the Secretary.

2. Evidence of the possession of the requisite moral and personal qualities may be: a certificate signed by an authorized representative of the candidate's former school testifying to the candidate's possession of a good moral character and of qualities which promise future usefulness of a high order. This certificate should be full and specific. It may be supplemented by letters from teachers and other responsible persons. All such certificates and letters should be sent by the writers directly to the Secretary.

3. Evidence of sound health may be: an acceptable certificate from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required.

Each student who plans to enter the College should file a preliminary application for admission with the Secretary at as early a date as possible. It is highly probable that Barnard College will find it necessary in the near future to limit the number of students admitted. Other things being equal, early applications will receive the preference.

SUBJECTS REQUIRED FOR ADMISSION

The requirement for admission to the freshman class is proficiency in fourteen and one-half (14½) units of secondary school subjects, of which

some are prescribed and the remainder elective, as specified below. The unit implies the study of a subject for a time equivalent to five (5) periods a week for one (1) year.

In September, 1915, and thereafter all candidates for admission to the A. B. and B.S. courses at Barnard College, except those who offer the complete elementary requirements in both Latin and Greek, will be required to offer at least three (3) units in modern foreign languages. To meet this requirement a student may offer Elementary and Intermediate French, or Elementary and Intermediate German, or the elementary examinations in any two of the modern languages in Group II below. For the change in the modern language requirement in college work see page 56.

COUNTING IN
UNITS

Candidates for the A.B. degree must offer:

| | |
|--|--------|
| English, elementary (page 32)..... | 3 |
| Mathematics, elementary (page 44)..... | 2½ |
| Latin, elementary, 4 units (page 42), or Greek, elementary, 3 units (page 40)..... | 4 or 3 |
| Elective subjects (from Groups I, II, III, <i>see italicized paragraph above</i>) to complete a total of 14½ units..... | 5 or 6 |

Candidates for the B.S. degree must offer:

| | |
|---|----|
| English, elementary (page 32)..... | 3 |
| Mathematics, elementary (page 44)..... | 2½ |
| Science (from Group III)..... | 2 |
| Intermediate or advanced subjects (from Group I, with which Latin 4 or 5 may be included, page 42)..... | 2 |
| Elective subjects (from Groups I, II, III, <i>see italicized paragraph above</i>)..... | 5 |

Candidates for the general two-years' course must offer:

| | |
|--|----|
| English, elementary (page 32)..... | 3 |
| Mathematics, elementary (page 44)..... | 2½ |
| Ancient or Modern Foreign Languages..... | 4 |
| History, Foreign Languages, Mathematics, or Science..... | 5 |

Candidates for the two years' course who intend to transfer to the School of Journalism must offer:

| | |
|--|-------------|
| English, elementary (page 32)..... | 3 |
| History, elementary (see note, page 40)..... | 2 |
| Foreign Languages (Groups I and II)..... | 4 or 5 or 6 |
| in one of the following combinations: | |
| a. French, 4 units | |
| b. German, 4 units | |

- c. French, 2 units; German, 2 units
- d. French, 2 units; German, 3 units
- e. German, 2 units; French, 3 units
- f. French or German, 2 units; Latin, 4 units
- g. French or German, 3 units; Latin, 3 units

Elective subjects (from Groups I, II, and III)
to complete a total of 14½ units..... 5½ or 4½ or 3½

Group I

Candidates may offer any of the following subjects without other restriction than that to offer an intermediate or advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject:

| | COUNTING IN UNITS |
|---|----------------------|
| Elementary Greek (page 40)..... | 2 or 3 |
| Elementary History (see note, page 40)..... | 2 or 1 |
| Drawing (page 31)..... | 1 |
| Music (page 45)..... | 1 |
| Intermediate French (page 37)..... | 1 |
| Intermediate German (page 38)..... | 1 |
| Advanced English (page 35)..... | 1 |
| Advanced Greek (page 40)..... | 1 |
| Advanced History (page 41)..... | 1 |
| Advanced Latin (page 44)..... | 1 |
| Advanced Mathematics (page 45)..... | ½ or 1 or 1½ |

And, in the case of candidates for the B.S. degree, or for the two-years' course, or for the A.B. degree if they offer 3 units of Greek:

| | |
|---|-------------|
| Elementary Latin (see note, page 42)..... | 2 or 3 or 4 |
|---|-------------|

And, in the case of candidates for the two-years' course preparatory to the School of Journalism:

| | |
|--|--------------------|
| Advanced French (see page 37)..... | 1 |
| Advanced German (see page 39)..... | 1 |
| Elementary Mathematics (see note, page 44).... | 1 or 1½ or 2 or 2½ |

Group II

Candidates for the A.B. or the B.S. degree may offer not more than 4 units in all and candidates for the general two-years' course may offer not more than 6 units in all from the four subjects following:

| | COUNTING IN UNITS |
|----------------------------------|----------------------|
| Elementary French (page 36)..... | 2 |
| Elementary German (page 37)..... | 2 |
| Italian (page 41)..... | 2 |
| Spanish (page 47)..... | 2 |

¹ Candidates will be examined in this subject only in January and in September.

Group III

Candidates for the A.B. degree may offer not more than 2 units and candidates for the B.S. degree must offer not less than 2 units in all from the five subjects following:

| | COUNTING IN UNITS |
|-----------------------------|----------------------|
| Botany (page 29)..... | I |
| Chemistry (page 30)..... | I |
| Physics (page 47)..... | I |
| Physiography (page 47)..... | I |
| Zoölogy (page 48)..... | I |

ENTRANCE EXAMINATIONS¹

Examinations for admission to Barnard College are held each year in Time January, June, and September. In 1914 they will be held June 15-20 and September 14-19, and in 1915, January 14-20 and June 14-19.

In June, 1914 and 1915, the entrance examinations will be conducted by the College Entrance Examination Board, of which Columbia University Place is a member, at Barnard College and at a large number of widely distributed points. A list of these points will be published by the Board (Post-Office Sub-Station 84, New York, N. Y.) about March 1. Requests that the examinations be held at particular points should reach the Secretary of the Board not later than February 1.

In September, 1914, and January, 1915, the entrance examinations of Barnard College will be conducted by the Columbia University Committee on Undergraduate Admissions. In September, 1914, they will be held only at the College. In January, 1915, they will be held at the College and at the Polytechnic Preparatory School, Brooklyn.

Every candidate for examination is required to file an application in advance. For the examinations in June, 1914, the application must be Application filed with the Secretary of the College Entrance Examination Board, Post-Office Sub-Station 84, New York, N. Y. for Applications for examination in the United States east of Examination the Mississippi River (also at Minneapolis, St. Louis, and other points on the Mississippi River) must be filed on or before June 1. Applications for examination elsewhere in the United States or in Canada must be filed on or before May 25, and applications for examination at

¹ Candidates who find that examinations are fixed for days set apart for religious purposes by the church to which they belong, and who are prevented by conscientious scruples from attending such examinations, are requested to make application to the Committee on Admissions through the Registrar of Barnard College for equitable relief. It should be noted, however, that in case alternative opportunities for taking a given examination are statedly offered, as for instance the January, June, and September entrance examinations, such students are expected to present themselves on the day which is not set apart as a holy day.

points outside of the United States and Canada must be filed on or before May 11. Requests for blank forms of application should be addressed to the Secretary of the Board.

A candidate for a competitive scholarship to be awarded on the basis of the June examinations must, in her application to the Secretary of the College Entrance Examination Board, mention the scholarship for which she is competing.

For the examinations in September, 1914, and January, 1915, applications must be filed with the Registrar of Barnard College on or before September 7, and January 7, respectively. Requests for blank forms of application should be addressed to the Secretary of Barnard College.

Every application for examination in June must be accompanied by a fee of \$5 in the form of a postal order, express order, or draft on New York, to the order of the *College Entrance Examination Board*, for all candidates examined at points in the United States and Canada, and \$15 for all candidates examined at points outside of the United States and Canada.

Every application for examination in September or in January must be accompanied either by a fee of \$5 in the form of a postal order, express order, or draft on New York, to the order of *Barnard College*, by a receipt from the Bursar of Barnard College for an examination fee previously paid, or by the receipt issued by the Secretary of the College Entrance Examination Board for the June examinations immediately preceding. *The latter will be accepted in either September or January but not in both; and a single fee paid to the University will cover only two consecutive series of examinations, namely, January and September or September and January.*

If a late application is accepted either by the College Entrance Examination Board, or by the College, a second fee of \$5 must be paid.

The receipt for the examination fee must be carefully preserved by the candidate and shown (not surrendered) to the supervisor in charge of the examinations as evidence of her right to be admitted to the same. No candidate will be admitted to the September or January examinations upon the receipt of the College Entrance Examination Board, unless that receipt bears the certification of the Registrar of Barnard College that the candidate's application for the examinations has been filed.

Candidates taking the examinations must report to the supervisor, in the examination room, fifteen minutes in advance of the first examination which they are to attend.

Schedule of
Examina-
tions

June 15-20, 1914

Monday, June 15

| | |
|--|----------|
| Mathematics <i>a</i> (elementary algebra complete)..... | 9-11 |
| Mathematics <i>a</i> , <i>i</i> (algebra to quadratics)..... | 9-11 |
| Mathematics <i>a</i> , <i>ii</i> (algebra, quadratics and beyond)..... | 11.15- 1 |
| Physics..... | 2-4 |
| Botany..... | 2-4 |

| | |
|--|---------|
| Zoölogy..... | 2-4 |
| History <i>b</i> (mediaeval and modern)..... | 4.15- 6 |
| History <i>d</i> (American)..... | 4.15- 6 |

Tuesday, June 16

| | |
|--|----------|
| Mathematics <i>c</i> (plane geometry)..... | 9-11 |
| Mathematics <i>d</i> (solid geometry)..... | 11.15- 1 |
| German <i>a</i> (elementary)..... | 2-4 |
| History <i>a</i> (ancient)..... | 4.15- 6 |
| History <i>c</i> (English)..... | 4.15- 6 |

Wednesday, June 17

| | |
|---|---------|
| Latin <i>z</i> (second-year Latin)..... | 9-11 |
| French <i>a</i> (elementary)..... | 2-4 |
| German <i>b</i> (intermediate)..... | 4.15- 6 |
| German <i>bc</i> (intermediate and advanced)..... | 4.15- 6 |
| Spanish..... | 4.15- 6 |

Thursday, June 18

| | |
|--|---------|
| Latin <i>4</i> (Cicero's <i>Manilian Law</i> and <i>Archias</i> , and sight translation of prose)..... | 9-11 |
| Latin <i>5</i> (Vergil's <i>Aeneid</i> , I, II, and IV or VI, and sight translation of poetry)..... | 2-4 |
| French <i>b</i> (intermediate)..... | 4.15- 6 |
| French <i>bc</i> (intermediate and advanced)..... | 4.15- 6 |

Friday, June 19

| | |
|---|----------|
| English <i>a</i> (reading and practice)..... | 9-11 |
| Latin <i>6</i> (advanced prose composition)..... | 11.15- 1 |
| English <i>b</i> (study and practice)..... | 2-4 |
| Drawing..... | 4.15- 6 |
| Greek <i>b</i> (Xenophon's <i>Anabasis</i>)..... | 4.15- 6 |
| Mathematics <i>b</i> (advanced algebra)..... | 4.15- 6 |

Saturday, June 20

| | |
|--|-------------|
| Chemistry..... | 9-11 |
| Geography..... | 9-11 |
| Greek <i>c</i> (Homer's <i>Iliad</i> , Books I-III)..... | 9-11 |
| Music <i>b</i> (harmony)..... | 9-11 |
| Greek <i>a</i> , i (grammar)..... | 11.15-12.15 |
| Greek <i>a</i> , ii (elementary prose composition)..... | 12.15- 1 |
| Greek <i>g</i> (sight translation of prose)..... | 2-4 |
| Mathematics <i>f</i> (plane trigonometry)..... | 2-4 |
| Greek <i>f</i> (prose composition)..... | 4.15- 6 |
| Music <i>a</i> (musical appreciation)..... | 4.15- 6 |

September 14-19, 1914, and January 14-20, 1915

Monday, September 14, and Thursday, January 14

| | |
|---|------------|
| Mathematics <i>a</i> , <i>i</i> (algebra to quadratics)..... | 9.30-11.30 |
| Mathematics <i>a</i> , <i>ii</i> (quadratics and beyond)..... | 9.30-11.30 |
| Mathematics <i>a</i> (elementary algebra, complete)..... | 9.30-12.30 |
| History <i>b</i> (mediæval and modern)..... | 1.30- 3.30 |
| History <i>d</i> (American)..... | 1.30- 3.30 |
| Physics..... | 3.45- 5.45 |
| Botany..... | 3.45- 5.45 |
| Zoölogy..... | 3.45- 5.45 |

Tuesday, September 15, and Friday, January 15

| | |
|--|------------|
| Mathematics <i>c</i> (plane geometry)..... | 9-11 |
| Mathematics <i>d</i> (solid geometry)..... | 9-11 |
| Mathematics <i>cd</i> (plane geometry and solid geometry)..... | 9-12 |
| History <i>a</i> (ancient)..... | 1.30- 3.30 |
| History <i>c</i> (English)..... | 1.30- 3.30 |
| German <i>a</i> (elementary)..... | 3.45- 5.45 |

Wednesday, September 16, and Saturday, January 16

| | |
|--|------------|
| Latin <i>z</i> (second-year Latin)..... | 9-11 |
| Mathematics <i>b</i> (advanced algebra)..... | 9-11 |
| Greek <i>g</i> (sight translation of prose)..... | 9-11 |
| French <i>a</i> (elementary)..... | 1.30- 3.30 |
| German <i>b</i> (intermediate)..... | 3.45- 5.45 |
| German <i>bc</i> (intermediate and advanced)..... | 3.45- 5.45 |
| Greek <i>a</i> (grammar and elementary prose composition)..... | 3.45- 5.45 |
| Spanish..... | 3.45- 5.45 |
| Italian..... | 3.45- 5.45 |

Thursday, September 17, and Monday, January 18

| | |
|--|------------|
| Latin <i>4</i> (Cicero's <i>Manilian Law</i> and <i>Archias</i> , and sight translation of prose)..... | 9-11 |
| Music <i>a</i> (musical appreciation)..... | 9-11 |
| Greek <i>f</i> (prose composition)..... | 11-12.30 |
| Latin <i>5</i> (Vergil's <i>Aeneid</i> , I, II, and IV or VI, and sight translation of poetry)..... | 1.30- 3.30 |
| French <i>b</i> (intermediate)..... | 3.45- 5.45 |
| French <i>bc</i> (intermediate and advanced)..... | 3.45- 5.45 |
| Drawing..... | 3.45- 5.45 |

Friday, September 18, and Tuesday, January 19

| | |
|--|-------------|
| English <i>a</i> (reading and practice)..... | 9-11 |
| Latin <i>6</i> (advanced prose composition)..... | 11.15-12.30 |
| English <i>b</i> (study and practice)..... | 1.30- 3.30 |
| Chemistry..... | 3.45- 5.45 |
| Physiography..... | 3.45- 5.45 |

| | | |
|--|-------|------|
| Greek <i>c</i> (Homer's <i>Iliad</i> , Books I-III)..... | 3.45- | 5.45 |
| Music <i>b</i> (harmony)..... | 3.45- | 5.45 |

Saturday, September 19, and Wednesday, January 20

| | |
|---|------------|
| Greek <i>b</i> (Xenophon's <i>Anabasis</i>)..... | 9-11 |
| Advanced English..... | 9-12 |
| Advanced Greek..... | 9-12 |
| Mathematics <i>f</i> (plane trigonometry)..... | 9-11 |
| Advanced History..... | 1.30- 4.30 |
| Advanced Latin..... | 1.30- 4.30 |

Barnard College accepts in lieu of its entrance examinations or those of the College Entrance Examination Board¹ no credentials of any sort except (1) the examination reports of the Education Department of the State of New York showing that the candidate has completed certain courses in a high school in the State of New York and that she has passed the examinations of the Education Department in these subjects (for table of equivalents, see p. 25), (2) the official reports of entrance examinations taken in good faith for admission to other colleges, and (3) certain courses of the Summer Session of Columbia University (see p. 26). These credentials are accepted only in so far as they cover specifically, and by name, subjects or lettered (or numbered) parts of a subject which are accepted for admission to Barnard College, and state in percentages the grades received in the examinations in such subjects. Candidates must take the regular entrance examinations in the subjects in which their credentials are not deemed adequate. Except for reasons of weight credentials are not accepted as covering subjects passed more than twenty-nine months previous to the date at which the candidate intends to begin residence. No certificates from preparatory schools or from preparatory departments of colleges will be accepted in lieu of entrance examinations.

In order to be credited towards entrance, the candidate's credentials, together with (1) the statement of the extent and character of her preparation in each subject offered (see School Record, page 17), and (2) any science note-books or drawings that she has to present, must be in the hands of the Committee on Admissions on or before September 14, 1914, for admission in September, and on or before January 25, 1915, for admission in February.

Candidates for admission on the credentials of the New York State Education Department should notify the Secretary of Barnard College of their intention at least six weeks prior to the opening of the term in September or in February, i.e., on or before August 12, 1914, or December 23, 1914, in order that sufficient time may be allowed for obtaining their records from the Education Department.

¹ The numerical ratings of the Board are accepted by the College, but the passing mark is fixed by the Committee on Undergraduate Admissions.

The subjects for which the State credentials are accepted and their value in Barnard entrance units are as follows:

| | State Education Department counts | Barnard units |
|---|---|------------------|
| 1 Botany (Advanced Botany)..... | 5 | 1 |
| 1 Chemistry..... | 5 | 1 |
| 1 Drawing, Elementary Design, and Elementary Representation..... | 4 | 1 |
| English, Four Years..... | 13 | 3 |
| French, Two Years..... | 10 | 2 |
| " Third Year..... | 5 | 1 |
| " Fourth Year (<i>for candidates for two-year course preparatory to School of Journalism</i>) | 5 | 1 |
| German, Two Years..... | 10 | 2 |
| " Third Year..... | 5 | 1 |
| " Fourth Year (<i>for candidates for two-year course preparatory to School of Journalism</i>) | 5 | 1 |
| Greek: | | |
| Grammar and Composition..... | | |
| Second Year Greek..... | 10 | 2 |
| Translation of Prose at Sight..... | | |
| Third Year Greek..... | 5 | 1 |
| Advanced Prose Composition..... | | |
| 1 History: | | |
| 1 Ancient..... | 5 | 1 |
| 1 European..... | 5 | 1 |
| 1 English..... | 5 | 1 |
| 1 American..... | 5 | 1 |
| Italian..... | 10 | 2 |
| Latin (<i>for candidates for A.B. course</i>): | | |
| Third Year Latin (Latin 4)..... | 5 | 1½ |
| Fourth Year Latin (Latin 5)..... | 5 | 1½ |
| Advanced Prose Composition (Latin 6)..... | 1 | 1 |
| Latin (<i>for candidates for B.S. or two-year course</i>): | | |
| 2 Second Year Latin (Latin 3)..... | 10 | 2 |
| 2 Third or Fourth Year Latin (Latin 4 or 5)... | 5 | 1 |
| Mathematics: | | |
| Algebra..... | 5 | 1 |
| Intermediate Algebra..... | 2 | ½ |

¹ Credit cannot be secured in these subjects unless the following requirements are met:
(a) In all natural sciences, laboratory note-books, duly certified by the teachers, must be presented in accordance with the regulations stated on page 50.

(b) In Drawing at least twenty (20) freehand drawings, duly certified by the teacher, must be presented in accordance with the regulations stated on page 50.

(c) In History only the five-count electives will be accepted.

² See note, page 42.

| | | |
|-----------------------------------|----|---------------|
| Plane Geometry..... | 5 | 1 |
| Solid Geometry..... | 2 | $\frac{1}{2}$ |
| Plane Trigonometry..... | 2 | $\frac{1}{2}$ |
| Advanced Algebra..... | 3 | $\frac{1}{2}$ |
| • Physics..... | 5 | 1 |
| • Physiography..... | 5 | 1 |
| Spanish..... | 10 | 2 |
| • Zoölogy (Advanced Zoölogy)..... | 5 | 1 |

A grade of C in the following courses of the Summer Session of Columbia University will fulfill entrance requirements or remove entrance conditions in the subjects specified in each case:

Summer Session Work Botany s1 with s1a, if taken in two successive years—
in Lieu of Entrance Examinations for botany
Chemistry sA—for chemistry
French sA1, sA2, sA3—for elementary French
French sB1—for intermediate French
German sA1, sA2, sA3—for elementary German
German sB1 with sB2—for intermediate German
Italian s1 with s2—for elementary Italian
Latin s2—for advanced Latin prose composition
Mathematics sA1, sA2, sA5—for the corresponding parts of advanced mathematics
Physics sA—for physics
Spanish s1 with s2—for elementary Spanish

A candidate for admission who has not secured the prescribed $14\frac{1}{2}$ units may be admitted to the freshman class with conditions, if, in the judgment of the Committee on Admissions, she is qualified to undertake the work of the class. General deficiency in any prescribed subject will disqualify for admission. Except for reasons of weight a student who has failed to complete a course in a good high school or preparatory school will not be admitted with conditions.

All entrance conditions must be removed within one calendar year from the date of entrance.

A student admitted conditionally or by credentials from another college or from the State Education Department will be held under probation during the first half-year of residence. By Tuesday of the week preceding the Thanksgiving holidays, each department in which students on probation attend will make to the Committee on Instruction a special

¹ Credit cannot be secured in these subjects unless the following requirements are met:

- (a) In all natural sciences, laboratory note-books, duly certified by the teachers, must be presented in accordance with the regulations stated on page 50.
- (b) In Drawing at least twenty (20) freehand drawings, duly certified by the teacher, must be presented in accordance with the regulations stated on page 50.
- (c) In History only the five-count electives will be accepted.

report of progress in the case of every such student. The Dean, on the recommendation of the Committee on Instruction, will as soon as practicable after the mid-year examinations decide as to each student on probation whether she shall be admitted to full standing, have her period of probation extended, or be dropped from the roll.

The mark C, B, or A, obtained at the end of the first half-year of residence, in a course of a higher grade than the entrance requirement, will be regarded as removing an entrance condition in that subject, unless the condition was incurred in a part of the subject not directly involved in the work of the college course. To remove a condition by college work a mark of at least thirty-five per cent. must have been obtained in an entrance examination. Any condition not so removed must be satisfied by a regular entrance examination for which an application must be filed and a fee paid precisely as required of a candidate for admission. (Regarding the removal of entrance conditions by work in the Summer Session of Columbia University, see page 26.)

While work done in University extension courses is not primarily accepted in lieu of entrance examinations, *entrance conditions* may be removed by a grade of at least C subsequently obtained in the appropriate extension courses. Students in college who desire to avail themselves of this privilege must submit their choice of extension courses for the approval of the Committee on Instruction as a part of their regular college work. (For the general regulations regarding the election of extension courses, see page 55.)

ADMISSION TO ADVANCED STANDING

A candidate for admission to advanced standing, either upon the basis of credentials from other colleges or on examination, must fill out the appropriate application blank to be obtained from the Secretary, and file it with the Barnard College Committee on Admissions by September 7, 1914, for admission in September, or by January 7, 1915, for admission in February. Each candidate must also present at that time (1) an official statement of her academic record including entrance credits, (2) an honorable dismissal from the college which she is leaving, (3) a marked catalogue of that college plainly showing every requirement for admission and every course of instruction with which she is credited, (4) a certificate signed by an authorized representative of that college testifying to her possession of a good moral character, and another letter from one of her instructors in regard to her character and scholarship, and (5) a certificate of sound health.

Every candidate for admission to advanced standing must show that she has attained proficiency in the equivalent of (1) the requirements for admission to the freshman class (see page 17); (2) all the prescribed studies already pursued by the class to which she seeks admission; (3) as many elective studies as she would have pursued if she had entered the class at the beginning of the freshman year.

She may be admitted notwithstanding deficiencies in some of these

studies, but will not be recommended for a degree until she shall have brought all her studies up to the point required for that degree.

The credits granted in any subject to a student admitted with advanced standing may be withdrawn or diminished in amount, if, in pursuing such subject after admission to Barnard College, the student prove that the granting of the credits was wholly or in part unwarranted by her previous work.

No applicant may enter the senior class as a candidate for a degree after October 15 in any year, and no student will receive a degree who has resided less than two full half-years at Barnard College. (See also paragraph 11, page 55.)

Candidates for admission to the freshman class offering by examination more than the required 14½ units may be given credit toward a degree for this extra work, on a basis to be determined by the Committee on Admissions, provided that not more than 18 of the 124 points required for a degree may be gained in this way.

ADMISSION AS SPECIAL STUDENTS

A candidate for admission as a special student must fill out the appropriate application blank to be obtained from the Secretary and file it with the Committee on Admissions by September 7, 1914, for admission in September, or by January 7, 1915, for admission in February.

Special students in Barnard College are of two classes: matriculated and non-matriculated.

Matriculated special students are women who wish, without taking a degree, to make a serious study of some subject or group of subjects.

Matriculated Special Students They must pass the regular examinations for admission to the freshman class and have full credit for fourteen and one-half (14½) units of the entrance requirements. (See p. 17.) They may, therefore, in event of a change of plan, be credited with such of their courses as may coincide with the courses leading to a degree.

Non-matriculated special students must be women of mature age who wish to pursue chiefly advanced courses of special study. They may

Non-Matriculated Special Students be admitted at the discretion of the Committee on Admissions without passing formal entrance examinations; but they must furnish proof that they have at some time pursued the studies included in the matriculation examinations and must satisfy the requirements of the department that they desire to enter. *Candidates desiring to pursue merely elementary courses, as in languages, etc., will not be admitted as non-matriculated special students.*

Ordinarily no work done by a non-matriculated special student may count toward a degree.

Except for reasons of weight, satisfactory to the Committee on Admissions, no one will be received as a special student who is less than eighteen

years of age, or who has, within ten months of the time of her application, either been rejected or become deficient as a regular student.

Once admitted to the college, special students will be allowed to select their own courses of study subject to the general approval of the Provost, on the recommendation of the Committee on Instruction, and to the particular approval, for each course selected, of the head of the department in which the course is given.

Each student is required to pursue in each half-year courses amounting to at least eight (8) points, unless excused by the Provost, on the recommendation of the Committee on Instruction, for reasons of special weight.

In the courses which they severally pursue all special students will be held to the observance of the same regulations as to attendance, examination, proficiency, and deficiency as regular students.

All special students will receive a formal statement as to the satisfactory completion of the work that they have taken.

DEFINITIONS OF REQUIREMENTS¹

Specimens of the question papers set by Columbia University may be obtained from the Secretary upon application. The question papers of the College Entrance Examination Board are published annually in book form by Ginn & Company, Boston, Mass.

For a more detailed statement of the requirements in botany and physiography or lists of suitable laboratory experiments in chemistry and physics the reader is referred to the pamphlet of the College Entrance Examination Board containing definitions of the requirements in each subject.

BOTANY (counting one unit)

The candidate should have received training by means of the laboratory method in:

The structure and the more obvious features of the life history of at least ten types among the higher seed plants chosen from the more representative families (*e. g.*, Gramineæ, Liliaceæ, Salicaceæ, Ranunculaceæ, Rosaceæ, Leguminosæ, Cruciferæ, Solanaceæ, Labiatae, Compositæ). In addition to these, the following types are recommended among the remaining lower groups of plants: pine, *Selaginella*; a fern, a moss (*Polytrichum* or *Funaria*); a leafy hepatic, *Marchantia*; a mildew (*Microsphaera*); an agaric, *Vaucheria*, *Spirogyra*; and a protophyte (preferably *Sphærella*).

Morphology of shoot, root, and seed. This work covers the growth, character, relation, and function of the more important tissues of the stem, leaf, bud, and root; together with a study of the more common variation of these organs. The work on the seed includes the structure and homologies of the principal types, nature of reserve food, the renewal of growth of the seed, and the development of the seedling.

Physiology. This work should cover the essential facts concerning irritability, photosynthesis, respiration, digestion, growth, and reproduction.

¹ The relative value of subjects is expressed in units according to the time required for adequate preparation in them; a unit in the sense here used represents a course of five (5) periods weekly throughout an academic year of the preparatory school.

Ecology. The natural history of plants should receive considerable attention, and the behavior of plants toward environmental factors (especially light and moisture), dissemination, cross and close pollination, and the more important structural and physiological characteristics of plant formations (hydrophytes, halophytes, mesophytes, and xerophytes) should be included.

As evidence of proper laboratory training and of satisfactory work, a note-book must be submitted. (See Submission of Note-books, page 50.)

CHEMISTRY (counting one unit)

The candidate's preparation in chemistry should include:

a. The study of a standard text-book, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.

b. Instruction by lecture-table demonstrations, to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations.

c. Individual laboratory work, comprising at least forty exercises.

An indexed note-book of the experiments must be submitted. (See Submission of Note-books, page 50.)

The following outline includes only the indispensable things which must be studied in the class-room and laboratory. The material is, for the most part, common to all elementary text-books and laboratory manuals. The order of presentation will naturally be determined by each teacher for himself.

OUTLINE.—The chief physical and chemical characteristics, the preparation and the recognition of the following elements together with their principal compounds: *oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, zinc, copper, mercury, silver, aluminum, lead, tin, iron, manganese, chromium*.

More detailed study should be confined to the italicized *elements* (as such) and to a restricted list of compounds such as: water, hydrochloric acid, carbon-monoxide, carbon-dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur-dioxide, sulphuric acid, hydrogen sulphide, sodium-hydroxide, ammonium-hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flames, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and Boyle's and Charles's laws, symbols and nomenclature, atomic and ionization theory, atomic weights, valency (in a very elementary way), nascent state, natural grouping of the elements, solution (solvents and solubility of gases and solids and liquids, saturation), strength of acids and bases, conservation and dissipation of energy, chemical energy, electrolysis. Chemical terms should be clearly understood, and the pupil should be able to illustrate and apply the ideas they

embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts.

DRAWING (counting one unit)

The candidate's preparation in drawing should be directed toward training him in accurate observation and in definite and truthful representation of form, without attempt to represent color or color values.

The candidate should be able to draw correctly and with lines of good quality simple forms in correct perspective in the size in which it is felt in the plane of the drawing, or larger or smaller. It is recommended that pupils should be taught to draw from the object itself rather than from the flat.

The elementary principles of perspective are to be thoroughly learned, and the candidate should be able to apply them in freehand drawing from the object or from the imagination.

No definite prescription as to method of teaching is made. The examination will test the preparation of the candidate in the following points:

1. Ability to sketch from the object with reasonable correctness as to proportion, structure, and form. It is recommended that the subjects drawn include simple geometrical objects and simple natural objects such as living plant forms.

2. Ability to sketch freehand from dictation with reasonable accuracy any simple geometrical figure or combination of figures.

3. Ability to represent accurately in perspective a simple geometrical solid of which projection drawings are given, and ability to make consistent projection drawings of a simple geometrical solid of which a perspective representation is given.

4. Ability to answer questions in regard to the principles involved in making these drawings.

Every candidate must present at the time of and as part of the examination in drawing a set of freehand drawings executed during one year's course in a preparatory school and within a period of two years before the time of application for admission.

These drawings should be at least twenty in number and should display proficiency in the points mentioned in paragraphs 1, 2, and 3.

Correctness of proportion and accuracy in the angles and curves and structural relations of the parts of every figure or object drawn are of the highest importance, and great care should be taken in laying out the drawings, in the use of construction lines, and in the drawing of general masses and contour before the details are begun.

A certain proportion of shade drawings from casts may be included, but they are not required and should not form the majority of the drawings submitted.

All drawings should be of uniform size, and fastened together, not rolled. In case the candidate has not attended a systematic course of instruction

as detailed above she may submit a corresponding set of freehand drawings. (See Submission of Note-books, page 50.)

ENGLISH

Elementary (counting three units)

No applicant will be accepted in English whose work is notably defective in point of spelling, grammar, idiom, punctuation, or division into paragraphs.

a. Reading and Practice:

The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before her in the examination paper. The treatment of these topics is designed to show the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. *In every case knowledge of the book will be regarded as less important than the ability to write good English.* In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by her instructor, containing compositions or other written work done in connection with the reading of the books, and prepared in accordance with a list of directions, to be obtained by addressing the Secretary of the University. (See Submission of Note-books, page 50.) In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of rhetoric.

Candidates intending to take this part of the examination should read the books prescribed for the year in which they propose to submit themselves for examination in this subject.

In 1914, ten units are to be selected, two from each group:

Group I. The *Old Testament*, comprising at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Esther*; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the *Iliad*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; Vergil's *Aeneid*. The *Odyssey*, *Iliad*, and *Aeneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

Group II. Shakspere's *The Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry V*; *Julius Cæsar*.

Group III. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *The Vicar of Wakefield*; either Scott's *Ivanhoe*, or Scott's *Quentin Durward*; Hawthorne's *The House of the Seven Gables*; either Dickens's *David Copperfield*, or Dickens's *A Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

Group IV. Bunyan's *Pilgrim's Progress*. Part I; *The Sir Roger de Coverley Papers* in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*

Thackeray's *English Humorists*; selections from Lincoln, including at least the two *Inaugurals*, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*, and *Letter to Horace Greeley*, along with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden*, or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

Group V. Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; Coleridge's *The Ancient Mariner* and Lowell's *The Vision of Sir Launfal*; Scott's *The Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley; Poe's *The Raven*, Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

In 1915, 1916, 1917, 1918, and 1919 at least two selections are to be made from each of the following groups, except as otherwise provided under Group I.

Group I (Classics in Translation). *The Old Testament*, comprising at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Esther*; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the *Iliad*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the *Aeneid*. *The Odyssey*, *Iliad*, and *Aeneid* should be read in English translations of recognized literary excellence.

(For any selection from this group a selection from any other group may be substituted.)

Group II (Shakspere). *Midsummer Night's Dream*, *Merchant of Venice*, *As You Like It*, *Twelfth Night*, *The Tempest*, *Romeo and Juliet*, *King John*, *Richard II*, *Richard III*, *Henry V*, *Coriolanus*, *Julius Cæsar*, *Macbeth*, *Hamlet*. (No one of the last three may be taken if chosen for study under b.)

Group III (Prose Fiction). Malory, *Morte d'Arthur* (about 100 pages); Bunyan, *Pilgrim's Progress*, Part I; Swift, *Gulliver's Travels* (voyages to Lilliput and to Brobdingnag); Defoe, *Robinson Crusoe*, Part I; Goldsmith, *Vicar of Wakefield*; Frances Burney, *Evelina*; Scott's Novels, any one; Jane Austen's Novels, any one; Maria Edgeworth, *Castle Rackrent*, or *The Absentee*; Dickens's Novels, any one; Thackeray's Novels, any one; George Eliot's Novels, any one; Mrs. Gaskell, *Cranford*; Kingsley, *Westward Ho!* or *Hereward, the Wake*; Reade, *The Cloister and the Hearth*; Blackmore,

Lorna Doone; Hughes, *Tom Brown's School Days*; Stevenson, *Treasure Island*, or *Kidnapped*, or *Master of Ballantrae*; Cooper's Novels, any one; Poe, *Selected Tales*; Hawthorne, *The House of the Seven Gables*, or *Twice Told Tales*, or *Mosses from an Old Manse*; a collection of *Short Stories* by various standard writers.

Group IV (Essays, Biography, etc.). Addison and Steele, *The Sir Roger de Coverley Papers*, or selections from the *Tatler* and *Spectator* (about 200 pages); Boswell, selections from the *Life of Johnson* (about 200 pages); Franklin, *Autobiography*; Irving, selections from the *Sketch Book* (about 200 pages), or *Life of Goldsmith*; Southey, *Life of Nelson*; Lamb, selections from the *Essays of Elia* (about 100 pages); Lockhart, selections from the *Life of Scott* (about 200 pages); Thackeray, lectures on *Swift*, *Addison*, and *Steele* in the *English Humorists*; Macaulay, any one of the following essays: *Lord Clive*, *Warren Hastings*, *Milton*, *Addison*, *Goldsmith*, *Frederic the Great*, *Madame d'Arblay*; Trevelyan, selections from the *Life of Macaulay* (about 200 pages); Ruskin, *Sesame and Lilies*, or *Selections* (about 150 pages); Dana, *Two Years Before the Mast*; Lincoln, selections, including at least the two *Inaugurals*, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*, the *Letter to Horace Greeley*, together with a brief memoir or estimate of Lincoln; Parkman, *The Oregon Trail*; Thoreau, *Walden*; Lowell, *Selected Essays* (about 150 pages); Holmes, *The Autocrat of the Breakfast Table*; Stevenson, *An Inland Voyage* and *Travels with a Donkey*; Huxley, *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; a collection of *Essays* by Bacon, Lamb, De Quincey, Hazlitt, Emerson, and later writers; a collection of *Letters* by various standard writers.

Group V (Poetry). Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under b); Goldsmith, *The Traveller* and *The Deserted Village*; Pope, *The Rape of the Lock*; a collection of English and Scottish Ballads, as, for example, some *Robin Hood* ballads, *The Battle of Otterbourne*, *King Estmere*, *Young Beichan*, *Bewick and Grahame*, *Sir Patrick Spens*, and a selection from later ballads; Coleridge, *The Ancient Mariner*, *Christabel*, and *Kubla Khan*; Byron, *Childe Harold*, Canto III or IV, and *The Prisoner of Chillon*; Scott, *The Lady of the Lake*, or *Marmion*; Macaulay, *The Lays of Ancient Rome*, *The Battle of Naseby*, *The Armada*, *Ivry*; Tennyson, *The Princess*, or *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning, *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, "De Gustibus—", *The Pied Piper*, *Instans Tyrannus*; Arnold, *Sohrab and Rustum*, and *The Forsaken Merman*; selections from *American Poetry*, with special attention to Poe, Lowell, Longfellow, and Whittier.

b. Study and Practice:

This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form, and structure. In addition, the candidate may be required to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English literary history to which the prescribed works belong.

In connection with the reading and study of the required books parallel or subsidiary reading should be encouraged, and a considerable amount of English poetry should be committed to memory. The essentials of English grammar should not be neglected in preparatory study.

The books prescribed for this part of the examination are as follows:

In 1914: Shakspere's *Macbeth*; Milton's *L'Allegro, Il Penseroso*, and *Comus*; either Burke's *Speech on Conciliation with America* or both Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; either Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

In 1915, 1916, 1917, 1918, and 1919; the books provided for study are arranged in four groups, from each of which one selection is to be made.

Group I (Drama). Shakspere, *Julius Cæsar*, or *Macbeth*, or *Hamlet*.

Group II (Poetry). Milton, *L'Allegro, Il Penseroso*, and either *Comus* or *Lycidas*; Tennyson, *The Coming of Arthur*, *The Holy Grail*, and *The Passing of Arthur*; the selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

Group III (Oratory). Burke, *Speech on Conciliation with America*; Macaulay's *Two Speeches on Copyright* and Lincoln's *Speech at Cooper Union*; Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*.

Group IV (Essays). Carlyle, *Essay on Burns*, with a selection from Burns's *Poems*; Macaulay, *Life of Johnson*; Emerson, *Essay on Manners*.

Advanced (counting one unit)

Candidates offering Advanced English will be required to have covered substantially the same ground as that included under English A1-A2, the course prescribed for freshmen. Candidates are examined in the following subjects:

1. English composition, with special attention to correctness of style and orderly arrangement of material. In preparation for this part of the examination, the student should gain a practical acquaintance with the principles of rhetoric as expounded in any good text-book.

2. English literature—the general history from the Anglo-Saxon period to the death of Tennyson, and selected works from the Elizabethan period to the present day. The selected works are: Marlowe's *Edward II*; Shakspere's *Hamlet*; Milton's *Paradise Lost* (Books I, II, III, and VI); Dryden's *Essay: on Dramatic Poesy*; Swift's *The Battle of the Books*; Pope's *Essay on Man*; Sheridan's *The Rivals*; Shelley's *Prometheus Unbound*; Tennyson's *In Memoriam*; Carlyle's *Past and Present*.

In examination the candidate will be expected to answer questions on the history of English literature and to write short essays based on topics relating to the works prescribed. In addition she must submit not less than ten essays of at least 500 words each. At least half but not all of these essays should be on topics chosen from the books prescribed. (See Submission of Note-books, page 50.)

FRENCH

a. Elementary (counting two units)

THE AIM OF THE INSTRUCTION.—At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of every-day life, or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar, as defined below.

THE WORK TO BE DONE.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About's *Le roi des montagnes*, Bruno's *Le tour de la France*, Daudet's easier short tales, La Bédolière's *La Mère Michel et son chat*, Erckmann-Chatrian's stories, Foa's *Contes biographiques* and *Le petit Robinson de Paris*, Foncin's *Le pays de France*, Labiche and Martin's *La Poudre aux yeux* and *Le voyage de M. Perrichon*, Legouvé and Labiche's *La cigale chez les fourmis*, Malot's *Sans famille*, Mariet's *La tâche du petit Pierre*, Mérimée's *Colomba*, extracts from Michelet, Sarcey's *Le siège de Paris*, Verne's stories.

b. Intermediate (counting one unit)

THE AIM OF THE INSTRUCTION.—At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

THE WORK TO BE DONE.—This should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

Suitable texts are: About's stories, Augier and Sandeau's *Le gendre de M. Poirier*, Béranger's poems, Corneille's *Le Cid* and *Horace*, Coppée's poems, Daudet's *La Belle-Nivernaise*, La Brète's *Mon oncle et mon curé*, Madame de Sévigné's letters, Hugo's *Hernani* and *La chute*, Labiche's plays, Loti's *Pêcheur d'Islande*, Mignet's historical writings, Molière's *L'avare* and *Le bourgeois gentilhomme*, Racine's *Athalie*, *Andromaque*, and *Esther*, George Sand's plays and stories, Sandeau's *Mademoiselle de la Seiglière*, Scribe's plays, Thierry's *Récits des temps mérovingiens*, Thiers's *L'expédition de Bonaparte en Egypte*, Vigny's *La canne de jonc*, Voltaire's historical writings.

c. Advanced (counting one unit for candidates for the two-years' course preparatory to the School of Journalism only.)

THE AIM OF THE INSTRUCTION.—At the end of the advanced course the pupil should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose; and to carry on a simple conversation in French.

THE WORK TO BE DONE.—This should comprise the reading of from 600 to 1000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable texts for the fourth year are: Dumas fils, *La question d'argent*; Hugo, *Quatre-vingt treize*, *Les misérables*; Loti, *Pêcheur d'Islande*; Taine, *L'Ancien régime*; Vigny, *Cinq-Mars*; an anthology of verse.

GERMAN

a. Elementary (counting two units)

THE AIM OF THE INSTRUCTION.—At the end of the elementary course in German the pupil should be able to read at sight, and to translate if called upon, by way of proving her ability to read, a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions, to put into German short English sentences taken from

the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of grammar, as defined below.

THE WORK TO BE DONE.—During the first year the work should comprise: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar—that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil first to use her knowledge with facility in the formation of sentences, and secondly to state her knowledge correctly in the technical language of grammar.

Stories suitable for the elementary course can be selected from the following list: Andersen's *Märchen* and *Bilderbuch ohne Bilder*; Arnold's *Fritz auf Ferien*; Baumbach's *Die Nonna* and *Der Schwiegersohn*; Gerstäcker's *Germelshausen*; Heyse's *L'Arrabbiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern's *Höher als die Kirche*; Jensen's *Die braune Erica*; Leander's *Träumereien* and *Kleine Geschichten*; Seidel's *Märchen*; Stökl's *Unter dem Christbaum*; Storm's *Immensee* and *Geschichten aus der Tonne*; Zschokke's *Der zerbrochene Krug*.

Among the shorter plays the best available are perhaps Benedix's *Der Prozess*, *Der Weiberfeind*, and *Günstige Vorzeichen*; Elz's *Er ist nicht eifersüchtig*; Wichert's *An der Majorsecke*; Wilhelmi's *Einer muss heiraten*. It is recommended, however, that not more than one of these plays be read. The narrative style should predominate. A good selection of reading matter for the second year would be Andersen's *Märchen* or *Bilderbuch* or Leander's *Träumereien*, to the extent of, say, forty pages; after that such a story as *Das kalte Herz*, or *Der zerbrochene Krug*; then *Höher als die Kirche*, or *Immensee*; next, a good story by Heyse, Baumbach, or Seidel; lastly *Der Prozess*.

b. Intermediate (counting one unit)

THE AIM OF THE INSTRUCTION.—At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty

whether recent or classical; to put into German a connected passage of simple English paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word-formation; and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.

THE WORK TO BE DONE.—The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read, also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

The intermediate course is supposed to be the elementary course plus one year's work at the rate of not less than four recitations a week. Suitable reading matter for the third year can be selected from such works as the following: Ebner-Eschenbach's *Die Freiherren von Gemperlein*; Freytag's *Die Journalisten* and *Bilder aus der deutschen Vergangenheit*—for example, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther*, *Aus dem Staat Friedrichs des Grossen*; Fouqué's *Undine*; Gerstäcker's *Irrefahrten*; Goethe's *Hermann und Dorothea* and *Iphigenie*; Heine's poems and *Reisebilder*; Hoffmann's *Historische Erzählungen*; Lessing's *Minna von Barnhelm*; Meyer's *Gustav Adolfs Page*; Moser's *Der Bibliothekar*; Riehl's *Novellen*—for example, *Burg Neideck*, *Der Fluch der Schönheit*, *Der stumme Ratsherr*, *Das Spielmannskind*; Rosegger's *Waldheimat*; Schiller's *Der Neffe als Onkel*, *Der Geisterseher*, *Wilhelm Tell*, *Die Jungfrau von Orleans*, *Das Lied von der Glocke*, *Balladen*; Scheffel's *Der Trompeter von Säkkingen*; Uhland's poems; Wildenbruch's *Das edle Blut*.

c. Advanced (counting one unit for candidates for the two-years' course preparatory to the School of Journalism only)

THE AIM OF THE INSTRUCTION.—At the end of the advanced course the student should be able to read, after brief inspection, any German literature of the last one hundred and fifty years that is free from any unusual textual difficulties, to put into German a passage of simple English prose, to answer in German questions relating to the lives and works of great writers studied, and to write in German a short independent theme upon some assigned topic.

THE WORK TO BE DONE.—The work of the advanced course should comprise the reading of about five hundred pages of good literature in prose and poetry, reference readings upon the lives and works of the great writers studied, the writing in German of numerous short themes upon assigned subjects, independent translation of English into German.

Suitable texts for the fourth year are: Goethe's, Schiller's, Lessing's works and lives.

GREEK

Elementary (counting two or three units)

NOTE.—To secure credit for two units in Greek, candidates must offer *a*, *b*, and *g*. To secure credit for three units they must offer *a*, *b*, *c*, *f*, and *g*.

a. i. Grammar. The common forms, idioms, and constructions, and the general grammatical principles of Attic Greek prose.

ii. Elementary Prose Composition. Translation into Greek of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in the two subjects immediately preceding will be based on the first two books of Xenophon's *Anabasis*.

Both parts of Greek a must be passed at one and the same examination.

b. Xenophon. The first four books of the *Anabasis*.

c. Homer. The first three books of the *Iliad* (omitting II, 494—end) and the constructions, poetical forms, and prosody of Homer's *Iliad*.

f. Prose Composition. Translation into Greek of continuous prose based on Xenophon and other Attic prose of similar difficulty.

g. Sight Translation of Prose. Translation into English at sight based on prose of no greater difficulty than Xenophon's *Anabasis*.

Advanced (counting one unit)

Candidates offering Advanced Greek will be required to have covered substantially the same ground as that included under Greek 3-4 with 9-10. In Homer, for which no equivalent will be accepted, the minimum requirement will be 1200 lines in addition to the amount offered for the elementary examination. The candidate must also offer Plato's *Apology*, and Lucian, 50 pages in the Teubner text, and in prose composition at least fifteen exercises in Spieker's Greek Prose Composition. If candidates wish to offer equivalents for the portions of Plato or Lucian named above, they must designate them when they apply for examination in this subject.

HISTORY

Elementary

NOTE.—Each of the four divisions, *a*, *b*, *c*, and *d*, counts one unit. Candidates for admission to the A.B., the B.S., or the general two-years' course may offer any one or any two of the divisions without restriction. Candidates for admission to the two-years' course preparatory to the School of Journalism must offer two units and may offer three or four units.

a. Ancient history, including a brief introductory study of the Oriental peoples, and early mediaeval history to the death of Charlemagne, with due reference to art, literature, and government.

b. Mediaeval and modern history, from the death of Charlemagne to the present time, with due reference to the growth of the state-system.

c. English history, with due reference to social and political development.

d. American history, with the elements of civil government.

On examination a candidate must show such general knowledge of the subject in each division offered as may be acquired from the study of an accurate text-book of not less than three hundred pages. *Since the questions will be so framed as to require comparison and the use of judgment rather than mere exercise of memory on the part of the pupil*, it is recommended that the teacher prescribe a course of supplementary reading of not less than three hundred pages, dealing with the more important periods and events in each division offered. Geographical knowledge will be tested by requiring the location of places, boundaries, and movements on an outline map.

Advanced (counting one unit)

Candidates offering Advanced History will be required to have performed work of the same kind, amount, and quality as that required for History A1-A2—the course prescribed in Barnard College. The work done at school, therefore, should be substantially identical with that course, the nature of which is explained in a syllabus that may be obtained at the University Bookstore. Those candidates who desire to offer history as an advanced subject must have offered for elementary history either *a and b* or *c and d* and must present themselves for examination upon the two divisions *which they did not offer as an elementary subject*. The examination will presuppose superior ability on the part of the candidate to understand the significance of historical events, movements, or tendencies, to discern similarities and contrasts, and to combine results. Especial care should be exercised, therefore, in the selection of the supplementary reading on the more important periods and events in each of the two divisions.

As further evidence of proficiency, satisfactory written work must be presented in the form of a note-book, or bound collection of notes (see Submission of Note-books, page 50), which must contain not less than five thousand words on each division offered, and must show practice in at least three of the following exercises:

- (a) Notes and digests of reading outside of the text-books.
- (b) Written recitations requiring the use of judgment, and the application to new questions of knowledge already gained.
- (c) Written parallels between historical characters, events, or periods.
- (d) Brief studies of topics limited in scope, prepared outside the classroom and illustrated by some reference to contemporary material.
- (e) Historical maps or charts showing explorations, migrations, conquests, territorial changes, or social phenomena.

ITALIAN**Elementary (counting two units)**

THE AIM OF THE INSTRUCTION.—At the end of the course the pupil should be able to pronounce Italian accurately, to read at sight easy Italian prose, to put into Italian simple English sentences taken from the

language of every-day life, or based upon a portion of the Italian text read, and to answer correctly questions on the rudiments of the grammar, as defined below.

THE WORK TO BE DONE.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) abundant exercises illustrating the principles of grammar; (4) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Italian of easy variations of the sentences read; (5) writing Italian from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of modern prose from different authors and of easy poetry; (2) practice in translating Italian into English, and English variations of the text into Italian; (3) continued study of the elements of grammar and of syntax; (4) mastery of all but the rare irregular verb-forms and of the simpler uses of the moods and tenses; (5) writing Italian from dictation.

Suitable texts for the second year are: E. DeAmicis' *Cuore*; G. Giacosa's *Acquazzoni in montagna*; P. Zambri's *Il caporale di settimana*; G. Gozzi's *Poesie e prosce*, scelte da A. Pippi; G. C. Abba's *Da Quarto al Volturno*; Guido Zalorsi's *Guardare e pensare*; S. Zarira's *Il Signor Io*; A. Stoppani's *Il bel paese*.

LATIN

Elementary

NOTE.—Candidates for admission to the A.B. course (except those who offer three units of Greek) must offer 4, 5, and 6, to secure the four prescribed units. Candidates for admission to the B.S. course or the two-years' course, and candidates for admission to the A.B. course who offer three units of Greek, may offer two, three, or four units from this subject. Such candidates must offer 3 to secure two units; and, to secure three units, 3 with either 4 or 5.

Either Latin 4 or Latin 5 may be offered as one of the "intermediate" or "advanced" subjects required for admission to the B.S. course.

3. Second year Latin. The examination will presuppose reading not less in amount than Cæsar, Gallic War, I-IV, selected by the schools from Cæsar (Gallic War and Civil War) and Nepos (Lives); but the passages set will be chosen with a view to sight translation. The paper will include easy grammatical questions and some simple composition. (See note above.)

4. Cicero and sight translation of prose.

i. Prescribed reading: the oration for the Manilian Law and the oration for Archias.

ii. Sight translation of prose of no greater difficulty than ordinary passages of Cicero's orations.

Candidates must deal satisfactorily with both these parts of the paper, or they will not receive credit for either part.

5. Vergil and sight translation of poetry.

i. Prescribed reading: Vergil's *Æneid* I, II, and either IV or VI at the option of the candidate, with questions on the subject-matter, literary and historical allusions, and prosody.

ii. Sight translation of poetry of no greater difficulty than Vergil's *Æneid*.

Candidates must deal satisfactorily with both these parts of the paper, or they will not receive credit for either part.

6. Advanced prose composition. The examination will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose. The words, constructions, and range of ideas called for will be such as are common in the reading of the preparatory course of four years.

The foregoing requirements are in substance identical with those recommended for adoption by the American Philological Association at its annual meeting in December, 1909, viz.:

I. Amount and Range of the Reading Required

1. The Latin reading required of candidates for admission to college, without regard to the prescription of particular authors and works, shall be not less *in amount* than Cæsar, Gallic War, I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, *Æneid*, I-VI.

2. The amount of reading specified above shall be selected by the schools from the following authors and works: Cæsar (Gallic War and Civil War) and Nepos (Lives); Cicero (orations, letters, and *De Senectute*) and Sallust (Catiline and Jugurthine War); Vergil (Bucolics, Georgics, and *Æneid*) and Ovid (Metamorphoses, Fasti, and Tristia).

II. Subjects and Scope of the Examinations

1. **TRANSLATION AT SIGHT.**—Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

2. **PREScribed READING.**—Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, *Æneid*, I, II, and either IV or VI at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.

3. **GRAMMAR AND COMPOSITION.**—The examinations in grammar and composition will demand thorough knowledge of all regular inflections,

all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose. The words, constructions, and range of ideas called for in the examinations in composition will be such as are common in the reading of the year, or years, covered by the particular examination.

Advanced (counting one unit)

Candidates offering Advanced Latin will be required to have covered substantially the same ground as that included under Latin A1, A2, the course prescribed for freshmen. In Horace and Catullus, for which no equivalent will be accepted, the minimum requirement will be the first and third books of the Odes, and selections from the shorter poems of Catullus amounting to four hundred lines, together with a satisfactory knowledge of the prosody. The candidate must also offer Livy, Book XXI (chapters 1-45 inclusive), and Book XXII (chapters 2-7 and 43-56 inclusive), Terence's Phormio (entire), and Gildersleeve and Lodge's Prose Composition, exercises 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57. If candidates wish to offer equivalents for the portions of Livy or Terence named above, they must designate them when they apply for examination in this subject.

MATHEMATICS

Elementary

NOTE.—Candidates for admission to the A.B., the B.S., or the general two-years' course must offer *a*, i and ii, and *c* to secure the two and one-half prescribed units. Candidates for admission to the two-years' course preparatory to the School of Journalism may offer one or more units from the following: Mathematics *a*, i, one unit; *a*, ii, one-half unit; *c*, one unit.

a. Elementary algebra.

i. The four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and lowest common multiple by factoring; fractions, including complex fractions, ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including the fractional and negative.

ii. Quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities that can be solved by the methods of linear or quadratic equations; problems depending upon quadratic equations; the binomial theorem for positive integral exponents; the formulas for the *n*th term and the sum of the terms of arithmetic and geometric progressions, with applications.

It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected

c. Plane geometry.

The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons, and the measurement of the circle; the solution of numerous original exercises, including loci problems; applications to the mensuration of lines and plane surfaces.

Advanced (counting one-half, one, or one and one-half units)

NOTE.—A candidate may offer one or more of the following subjects, each of which is equivalent to one-half unit.

For admission to the college course in Analytic Geometry in the freshman year, the student must have offered Plane Trigonometry at entrance and must take in the freshman year those parts of Mathematics A the equivalents of which were not offered at entrance.

b. Advanced algebra. Permutations and combinations, limited to simple cases; complex numbers, with graphical representation of sums and differences; determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations; numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes's rule of signs and Horner's method, but not Sturm's functions or multiple roots.

d. Solid geometry.

The usual theorems and constructions of good text-books; including the relations of planes and lines in space; the properties and measurements of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle; the solution of numerous original exercises, including loci problems; applications to the mensuration of surfaces and solids.

f. Plane trigonometry.

Definitions of relations of the six trigonometric functions as ratios, circular measurement of angles; proofs of principal formulas, in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle, the product of expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; solution of trigonometric equations of a simple character; theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique plane triangles, and practical applications.

MUSIC (counting one unit)

The candidate may offer either **a** or **b**.

a. Musical Appreciation (counting one unit)

The candidate is expected to have:

1. A general knowledge of the principal musical forms—song, classic dance, fugue, sonata (all movements), symphony—and of their historical development.
2. A general knowledge of the lives and environment of at least ten

composers including Bach, Mozart, Beethoven, Schubert, Chopin, and five of the following: Handel, Gluck, Haydn, Weber, Mendelssohn, Schumann, Wagner, Verdi, Brahms, Tschaikowsky, Grieg, MacDowell.

3. ¹ Familiarity with certain designated works:

| | |
|---------------------|---|
| <i>Bach:</i> | Prelude II and Fugue II, Book I, Well-Tempered Clavichord. |
| <i>Handel:</i> | Gavotte from Sixth English Suite. |
| <i>Haydn:</i> | The Hallelujah Chorus. |
| <i>Mozart:</i> | Slow Movement from "Emperor" Quartet (op. 76 No. 3). |
| <i>Beethoven:</i> | Symphony in G Minor (entire). Sonata (op. 31, No. 3, entire). Slow Movement from Second Symphony. First Movement from Seventh Symphony. First Movement from Unfinished Symphony. Song, "The Erl-King." |
| <i>Schubert:</i> | Song, "Hark, Hark, the Lark." |
| <i>Mendelssohn:</i> | Overture to "Midsummer Night's Dream." |
| <i>Chopin:</i> | Ballade (op. 47). Polonaise (op. 26, No. 1). Nocturne (op. 37, No. 2). |
| <i>Schumann:</i> | Allegro from Faschingsschwank (op. 26, No. 1). Song, "Im wunderschönen Monat Mai." |
| <i>Wagner:</i> | Overture to "Tannhäuser." Prize Song from "Die Meistersinger." |

In the examination in 3 the candidate will be expected to identify characteristic portions of the works set, when played by the examiner, and to give intelligent information concerning the form and character of the works themselves. The test will not require ability to perform or to read from printed music.

b. Harmony (counting one unit)

The candidate should have acquired:

1. The ability to harmonize, in four vocal parts, simple melodies of not fewer than eight measures, in soprano or in bass—these melodies will require a knowledge of triads and inversions, of diatonic seventh chords and inversions, in the major and minor modes; and of modulation, transient or complete, to nearly-related keys.
2. Analytical knowledge of ninth chords, all non-harmonic tones, and altered chords (including augmented chords). [Students are encouraged to apply this knowledge in their harmonization.]

It is urgently recommended that systematic ear-training (as to interval, melody, and chord) be a part of the preparation for this examination. Simple exercises in harmonization at the pianoforte are recommended.

¹ The examination in 3 will be held only in September and in January, and will be open only to candidates who have passed the examination in 1 and 2.

The students will be expected to have a full knowledge of the rudiments of music, scales, intervals, and staff-notation, including the terms and expression-marks in common use.

PHYSICS (counting one unit)

The candidate should be familiar with the elementary principles of physics and some of their practical applications and should be able to solve simple numerical problems. The preparation of the candidate should include:

a. The study of one of the standard text-books in use in secondary schools.

b. Instruction by lecture-table demonstrations in which the phenomena of physics are shown and the principles qualitatively illustrated.

c. Individual laboratory work, comprising at least thirty exercises. A suitable selection of experiments may be made from the list published by the College Entrance Examination Board. An indexed note-book of the experiments must be submitted. (See Submission of Note-books, page 50.)

PHYSIOGRAPHY (counting one unit)

NOTE.—This is identical with the subject called Geography by the College Entrance Examination Board.

The candidate's preparation in physiography should include the study of one of the modern text-books by Davis, Tarr, Dryer, or Gilbert and Brigham, together with an approved laboratory and field course of at least forty exercises actually performed by the candidate. Each division of the subject should receive approximately the same proportion of attention in the laboratory as in the class-work. It is suggested that the exercises be divided somewhat as follows: Earth as a Globe, 5; Ocean, 5; Atmosphere, 12; Land, 18. An indexed note-book containing the record of these exercises must be submitted. (See Submission of Note-books, page 50.)

SPANISH

Elementary (counting two units)

THE AIM OF THE INSTRUCTION.—At the end of the course, the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of every-day life, or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as defined below.

THE WORK TO BE DONE.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) exercises containing illustrations of the principles of grammar; (4) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Spanish of easy variations of the sentences read; (5) writing Spanish from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of modern prose from different authors; (2) practice in translating Spanish into English, and English variations of the text into Spanish; (3) continued study of the elements of grammar and syntax; (4) mastery of all but the rare irregular verb-forms and of the simpler uses of the moods and tenses; (5) writing Spanish from dictation.

Suitable texts for the second year are: Valera's *El pájaro verde*; Alarcón's *El final de Norma*, *El capitán Veneno*; Valdés's *José*; Galdós's *Doña Perfecta*; *Marianela*; Padre Isla's version of *Gil Blas*; Carrion and Aza's *Zaragüeta*.

ZOOLOGY (counting one unit)

The following outline includes the principles of zoölogy which are indispensable to a general survey of the science. It is planned for a full year's course. It is not intended to indicate order of study of the topics—this must be left to the teacher and the text-book.

1. The general natural history—including general external structure in relation to the adaptations, life histories, geographical range, relations to other plants and animals, and economic relations—of common vertebrates and invertebrates so far as representatives of these groups are obtainable in the locality where the course is given. The types suggested are a mammal, bird, lizard, snake, turtle, newt, frog, dogfish or shark, bony fish, clam, snail, starfish, earthworm, planarian, hydra, sea-anemone, paramcecum. In the case of arthropods, pupils should become familiar with common crustaceans, spiders, myriapods, and insects representing at least five orders. Actual examination of common animals with reference to the above points should be supplemented by reading giving natural-history information.

It is not expected that there will be time for making extensive note-books on the natural-history work; rather will the work in this line take the form of laboratory demonstrations. So far as time permits, drawings and notes should be made. The note-book mentioned below should contain at least drawings on the external structure of four animals not studied under Section 3, preferably two insects, a mollusk, and a second vertebrate.

2. The classifications of animals into phyla and leading classes (except the modern subdivisions of the worms) and the great characteristics of these groups—in the case of insects and vertebrates the characteristics of the prominent orders. The teaching of classification should be by practical work so as to train the pupil to recognize animals and to point out the chief taxonomic characteristics. The meaning of species, genera, and larger groups should be developed by constructive practical work with representatives of insect or vertebrate orders.

3. The general plan of external and internal structure, not the anatomical minutiae, of one vertebrate (preferably frog or fish) in general comparison with the human body; an arthropod (preferably a decapod); an annelid (earthworm or *Nereis*); a coelenterate (hydroid, hydra, or sea-anemone); a protozoön (a ciliate, and amoeba when possible). In place

of any of the above types not locally available there may be substituted a second vertebrate, an insect, a mollusk, or an echinoderm. Tissues, the study of which is recommended as optional,¹ should be examined first with the unaided eye, in such a structure as a frog's leg, and then with a microscope to demonstrate the relations of cells and intercellular substance in epithelium and cartilage and, if possible, in other tissues. The functions of the chief tissues and their positions in the body of a vertebrate should be pointed out.

4. (a) The general physiology of the above types, involving the essentials of digestion, absorption, circulation (respiration), cell-metabolism, secretion, excretion, and nervous functions. This should apply comparatively the essentials of elementary work in human physiology. Demonstrations and experiments, such as are suggested in high-school text-books on human physiology, should be introduced, or recalled if not previously well presented in elementary physiology, in connection with discussion of the chief functions. As far as practicable structure and function should be studied together.

(b) Comparison of the general life-processes in animals and plants (in connection with botany if zoölogy is first studied).

5. The very general features of asexual reproduction of a protozoön (preferably *Paramæcium*); alteration of generations in hydroids; reproduction and regenerations of *Hydra*; the very general external features of embryological development in a fish or frog; and (*optional*) the general cellular nature (not centrosomes and the like) of germ-cells, fertilization and cell-division in developing eggs should, as far as possible, be demonstrated and briefly described. Also, the most interesting features of development should be pointed out in the case of other animals studied.

6. The prominent evidence of relationship, suggesting evolution, within such groups as the decapods, the insects, and the vertebrates should be demonstrated. A few facts indicating the struggle for existence, adaptation to environment, variations of individuals, and man's selective influence should be pointed out; but the factors of evolution and the discussion of its theories should not be attempted.

7. (*Optional.*) Some leading facts regarding the epoch-making discoveries of biological history and the careers of such eminent naturalists as Darwin, Huxley, Pasteur, and Agassiz should be presented.

The above outline of a course in general zoölogy should be developed on the basis of a course of laboratory study guided by definite directions. This should be supplemented by the careful reading of at least one modern elementary text-book in general zoölogy. At least two-thirds of the time should be devoted to the practical studies of the laboratory. If good nature-studies have not preceded the course in high-school zoölogy, pupils should be encouraged to do supplementary work in the line of natural history. A note-book with carefully labeled outline drawings

¹ Topics marked "optional" are regarded as desirable for the best high-school zoölogy but will not be required in examinations.

of the chief structures studied anatomically (Section 3), and the drawing mentioned under natural history (Section 1), and with notes on demonstrations and in explanation of drawings, with dates and an index, must be submitted. It will be graded as one-third of the examination. (See Submission of Note-books, below.)

SUBMISSION OF NOTE-BOOKS, DRAWINGS, ETC.

All work submitted must be duly certified to in ink by the teacher in the following form:

Teacher's Certificate

..... School

..... 19.....

I certify that..... has personally performed, as recorded by her in this note-book,..... experiments in the..... laboratory of the..... School, during the year

The laboratory course has occupied time equal to..... hours of 60 minutes each.

Signed.....

Teacher of.....

The teacher may here record the final grade on this laboratory work of per cent.

Drawings should bear a similar certification, or, in case of work not done under instruction, should be accompanied by the candidate's own signed declaration.

All note-books, unless otherwise specified, should be submitted at the time of examination.

The College Entrance Examination Board no longer requires the submission of drawings or laboratory note-books. Candidates for admission to Barnard who are taking the examinations of the College Entrance Examination Board should therefore send the note-books, properly certified, to the Secretary of Barnard College. The books should be submitted during the week of the examinations of the College Entrance Examination Board.

Candidates submitting laboratory note-books or drawings with the credentials of the State Education Department should send them to the Secretary of Barnard College *at least ten days* prior to the opening of the term in September and in February—*i. e.* by September 14, 1914, or January 25, 1915.

English exercise books, submitted in lieu of examination, Advanced English essays, or Advanced History note-books should be sent to the Secretary of the College *at least two weeks before* the examinations begin. Within ten days the candidate will be informed whether or not the work

submitted has been accepted. English exercise books will *not* be returned to the writers.

All note-books uncalled for one year from the date of submission will be destroyed.

REGISTRATION AND ENROLMENT

All properly qualified students, with the exception of those classed as non-matriculated special students (see p. 28), may matriculate at Barnard College either as candidates for a degree or as special students who are permitted to attend such courses as they are qualified to take but who are not enrolled as candidates for a degree.

Matriculation

Before attending any academic exercise every student must comply with the regulations in regard to registration and payment of fees. She must present herself in person to furnish the information necessary for the College records.

Registration

Every new student must also at the time of registration file a statement of the courses which the Provost, on the recommendation of the Committee on Instruction, has authorized her to pursue. Students already in College are required to give notice of their choice of elective courses for the ensuing year to the Registrar on or before Friday, April 24, 1914. Proper blanks for this purpose will be provided by the Registrar's office. Students should not confuse the filing of elective blanks with registration.

Enrolment
for Courses

The office of the Registrar will be open for registration from Wednesday, September 16, to Tuesday, September 22, 1914, and on Monday and Tuesday, February 1 and 2, 1915. New students may register also on the day following each of these periods.

Students registering later must pay an additional fee of \$5. They may, however, if unable through no fault of their own to complete their registration, file a provisional statement within the statutory period. Students will be held directly accountable for absences incurred owing to late registration.

Every student who holds a scholarship must present her scholarship certificate to the Bursar at the time of registration.

The Dean, on the recommendation of the Committee on Instruction, may for reasons of weight grant a leave of absence to a student in good standing.

Leave of
Absence

An honorable discharge is granted to any adult student in good standing, who may desire to withdraw from the College; a minor must submit the written assent of her parents or guardians.

Honorable
Dismissal

GENERAL STATEMENT REGARDING FEES AND THE REGULATIONS GOVERNING THEIR PAYMENT

All fees are payable in advance at the Bursar's Office. Every student who fails to register within the limits of time fixed by the regulations of

the University shall be permitted to register only with the consent of the Dean, and by the payment of an additional fee of \$5. Students who enter late are required to pay the full charge for tuition for the half-year in which they register.

For an examination or any single series of examinations taken at any other time than at the conclusion of a course actually attended a fee of \$5 is charged.

The registration or matriculation fee must be paid at the time of entrance. No official record of a student's attendance can be noted until this fee has been paid.

The Dean may withdraw the privileges of any student who is delinquent in the payment of fees.

Checks should be made payable to the order of Barnard College, and addressed to the office of the Bursar.

Students are requested in cases of withdrawal from the College during the academic year to notify the Registrar in writing without delay. No **Withdrawal** application for a return of fees can be considered unless such notice is given at the time of withdrawal.

FEES

| | |
|--|--------|
| For matriculation or registration | \$5.00 |
| Required of all students before entrance. This fee is payable but once and is never refunded. | |
| For late registration (see p. 51) | 5.00 |
| For tuition, payable at the beginning of each half-year | 75.00 |
| Students not candidates for a degree are charged at the rate of \$7.50 a half-year for each point of instruction, with a maximum fee of \$150.00 for the year. If the entire fee is less than \$100.00 the whole must be paid upon registration. | |
| For examination, payable in each case before the examination is held: | |
| For entrance (see p. 21) | 5.00 |
| For any examination or single series of examinations taken at any other time than at the conclusion of a course actually attended, whether taken prior or subsequent to admission | 5.00 |
| For the degree | 15.00 |
| For laboratory work | |
| Botany (Courses 51, 52, 53, 54, 55, 56), each course | 1.25 |
| Botany (Courses 153, 154, 156, 158, 159, 160, 161, 162), each course | 2.50 |
| Chemistry (Courses 5, 6), each course | 2.00 |
| Chemistry (Courses 43, 44), each course | 7.50 |
| Chemistry (Courses 63, 64), each course | 6.00 |
| Chemistry (Courses 105, 106, 145, 146), each course | 10.00 |
| Mineralogy (Courses 17, 18), each course | 1.50 |

| | |
|--|--------|
| Zoölogy (Courses 1, 2, 3, 4), each course | \$2.50 |
| Should Course 3 be taken in connection with Course 1, or Course 4 be taken in connection with Course 2 or Course 102, the one fee covers both courses. | |
| Zoölogy (Courses 53, 54, 101, 102, 151, 152), each course | 2.50 |
| For the use of the gymnasium | 7.00 |
| Required of every student. | |

FEES OF STATE SCHOLARS

Holders of State Scholarships should file their University Scholarship Certificates at the office of the Bursar *on the day of registration* and should be prepared to pay, at the same time, the following fees:

| | |
|-----------------------------|---------|
| Matriculation fee | \$5.00 |
| Tuition fee | 25.00 |
| Gymnasium fee | 7.00 |
| | _____ |
| | \$37.00 |

and Laboratory fee according to work taken.

| | |
|---|---------|
| February payment, tuition fee | \$25.00 |
|---|---------|

The certificates will be held in the Bursar's Office until the state funds have been received; they will then be returned to the candidates. A bulletin-board notice will give information as to when they can be claimed.

DORMITORY FEES

| | |
|-------------------|---------|
| Deposit | \$15.00 |
|-------------------|---------|

Payable in advance to secure assignment of room, and held until final closing of accounts for the year as security for damage to rooms, fittings, or furniture, or for any other indebtedness.

Electricity, charged for by meter.

| | |
|-----------------|--------|
| Board | 225.00 |
|-----------------|--------|

Payable in two equal instalments in advance, on or before taking possession of room, and on February 1.

Rent

Payable in two equal instalments in advance, on or before taking possession of room, and on February 1.

Single rooms 140-270.00

Two-room suites (for one person) 350-385.00

Three-room suites (for two persons) 440-470.00

Private bath (for one, two, or three persons) 50.00

ESTIMATED NECESSARY EXPENSES

Board and single room, \$365 to \$495 for the academic year.
Electricity, \$5.
Matriculation fee, \$5.
Annual tuition fee, \$150.
Gymnasium fee, \$7.
Text-books, from \$10 to \$20 each year.
Final examination for the degree, \$15.

THE PROGRAM OF STUDIES

Upon satisfactory completion of a curriculum arranged on one of the plans to be described below (pp. 56-58) the student is recommended by the Faculty of Barnard College to the Trustees of Columbia University for the degree of Bachelor of Arts or Bachelor of Science.

The principles of the program of studies are as follows:

1. The requirement for graduation is 124 points. The term point usually signifies the satisfactory completion of work requiring attendance at class one hour or in a laboratory two hours a week for one half-year.
2. Studies are either prescribed, *i.e.*, obligatory upon all candidates for a degree, or elective, *i.e.*, to be taken, with certain restrictions, at the pleasure of the student.
3. Prescribed studies, with the exception of Economics A, must be taken as far as practicable during the first two years of residence; and subjects taken in college which are continuations of subjects offered at entrance must be taken as far as possible in the first year.
4. No courses other than those specified in the Announcement may be taken except by students specially qualified to pursue them with advantage and with the consent of the Provost, on the recommendation of the Committee on Instruction.
5. No combination of courses amounting to less than 12 or more than 16 points may be made in any half-year without the consent of the Provost, on the recommendation of the Committee on Instruction.
6. No credit will be given for a one-hour course, unless it is taken in connection with and as a supplement to a cognate course.
7. No more than four hours of class work, or its equivalent in laboratory work, or seven hours of class work and laboratory work combined, may be taken on the same day.
8. A major subject of at least 18 points of not less than grade C, exclusive of prescribed work, must be taken under some one department before graduation. Students entering by transfer from other colleges are required to take at least 4 points of this major at Barnard.
9. Admission to courses depends upon completion of the prerequisites as stated to each course separately. In all cases the requirements as to prerequisites for any course must be completed before the beginning of the half-year in which the course is given. Where no prerequisite is stated and where no limitation is noted the course may be taken and counted for a degree by any student of the college.

10. To be recommended for a degree, a student must have made at least 84 points in actual college residence, and at least 24 of these while registered in Barnard College, of which 24 points at least half should be taken during the senior year. The Faculty has power to suspend this rule in individual cases; but a statute of the University forbids the granting of a degree to any person who has not been a member of the University for a full academic year, *i.e.*, two half years. (See also the second paragraph on page 28.)

11. All requirements for a degree must be fulfilled by the candidate within six years from the time of her first matriculation as a freshman in college, whether at Barnard or elsewhere; within four and a half years from similar matriculation as a sophomore; within three years from matriculation as a junior; and within one and a half years from similar matriculation as a senior. If the candidate fails to satisfy the requirements within the time here specified, she is to lose credit for all the points gained by her toward the degree, unless, in individual cases, the Faculty shall otherwise direct.

12. No change of program, either by adding or by dropping a course, may be made by a student without the written consent of the Provost on recommendation of the Committee on Instruction. Except on the initiative of the departments or of the Committee on Instruction, such change will be allowed only in the third week after the opening of the first half-year and in the two weeks preceding the opening of the second half-year. Applications by students for change of program for the first half-year must be filed during the second week of that half-year; applications for change of program for the second half-year must be filed before that half-year begins. Until action is taken upon the application, the student must attend the courses originally named in her program.

13. The election of specific courses in Extension Teaching or in a Summer Session at Columbia University or elsewhere must be approved by the Committee on Instruction of Barnard College. No student who has received a grade of D or F during the preceding academic year will be allowed to count more than 6 points of work taken in a summer session, unless the Committee on Instruction shall otherwise decide. In no case may more than three courses or 8 points of work be counted in a summer session in any one year. No summer session course that is passed with a grade below C will be credited toward a Barnard degree.

14. Courses in Extension Teaching approved by the Committee on Instruction may be credited toward the degrees of A.B. and B.S. for matriculated students registered in Extension Teaching who maintain a grade at least of C.

Students of Barnard will be allowed to attend extension courses which are approved by the Committee on Instruction, and to count them toward the degrees of A.B. and B.S. under the following regulations:

a. The election of extension courses must be approved by the Committee on Instruction and by the Director of Extension Teaching.

Students will not be allowed to exceed a total of 16 points, including

the points of extension courses, at one time, save with the special permission of the Committee on Instruction, for reasons of weight.

c. Students desiring to count these courses toward the degrees of A.B. and B.S. must obtain in them a grade at least of C.

Before final choice of elective studies, all students should consult their advisers (see p. 61), the Committee on Instruction, and, in case of any doubt, the instructors in charge of particular courses as well. Electives must be chosen on some consistent plan. Conflicts between courses falling at the same hours are to be avoided by careful study of the Scheme of Attendance at the end of this volume, which has been drawn up with a view to making possible for every one the selection of a reasonable number of harmonious elective courses that shall not conflict in hours with each other or with prescribed courses. It often happens that some of the courses of one department form valuable supplements to certain courses of another, so that combinations of work under two or more departments are very desirable. In all such cases the best selections can be made only after consultation with officers of one or more of the departments concerned. This applies particularly to the major subject of 18 points.

I THE PROGRAM OF STUDIES FOR THE DEGREE OF BACHELOR OF ARTS

Unless their equivalents have been offered for admission the following courses are prescribed:

| | | |
|--|-----|--------|
| English A and B..... | 12 | points |
| French A and German A (see new requirements below)..... | 12 | " |
| History A..... | 6 | " |
| Latin A or Greek 5-6..... | 6 | " |
| Mathematics A..... | 6 | " |
| Philosophy A ¹ | 6 | " |
| Physical Education A and B..... | 4 | " |
| Economics A..... | 6 | " |
| Chemistry 5-6 or Physics 1-2..... | 6 | " |
| Botany, Chemistry, Geology, Physics, Experimental Psychology, or Zoölogy: two half-year courses in addition to Chemistry 5-6 or Physics 1-2 or any course in science that may have been offered for admission..... | 6 | " |
| Major subject of..... | 18 | " |
| Free electives to complete the total of..... | 124 | " |

New Requirements in Modern Languages

Students who enter Barnard College in 1914, and who have offered at entrance at least three (3) units in modern languages (see p. 18), have the option of satisfying, in place of the old requirements above stated, the following new requirements:

No modern language course in college will be prescribed. Before being registered as seniors, all students, except those who have offered the com-

¹ Or, on recommendation of the department, Philosophy 61-62.

plete requirement in Elementary Greek at entrance or who have taken Greek 1-2 and 3 in college, must satisfy the departments of Romance Languages and Germanic Languages that they have a working knowledge of French and German. In special cases, with the consent of the Committee on Instruction, Spanish or Italian may be substituted for French.

As a rule the departmental test will take the form of an oral examination in translation at sight. It may be taken at any time during the college course and must be taken before May 1 of the junior year.

A student who offers the complete requirement in Elementary Greek at entrance or who takes Greek 1-2 and 3 in college will be obliged to stand the test in only one of the modern languages.

In 1915 and thereafter the foregoing requirements will be prescribed for all students in the A.B. and B.S. courses.

II THE PROGRAM OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE

Unless their equivalents have been offered for admission the following courses are prescribed:

| | | |
|--|----|--------|
| English A and B..... | 12 | points |
| French A and German A (see new requirements under I above) | 12 | " |
| History A..... | 6 | " |
| Mathematics A..... | 6 | " |
| Philosophy A*..... | 6 | " |
| Physical Education A and B..... | 4 | " |
| Grouped work in science amounting to at least..... | 70 | " |

which must include:

A major subject of at least 28 points in one of the following natural sciences: Astronomy, Botany, Chemistry, Geography, Geology, Mineralogy, Physics, Experimental Psychology, and Zoölogy, or in Mathematics; and

Two minors of at least 12 points each, one in a subject allied to the major and one in a diverse subject, both to be chosen from the foregoing list with the addition of Anthropology, which should, as a rule, be taken only in connection with Botany or Zoölogy as a major.

Free electives to complete the total of..... 124 points

III GENERAL TWO-YEARS' COURSE, NOT LEADING TO A BARNARD DEGREE

This general course is designed to furnish the collegiate foundation for professional work in other schools of the University. It comprises from 62 to 76 points of work. The courses prescribed depend upon whether the candidate intends to transfer to the School of Architecture, the School of Music, the School of Practical Arts, or the School of Journalism.

Candidates who intend to transfer to the School of Architecture for

* Or, on recommendation of the department, Philosophy 61-62.

courses leading to the degree of Bachelor of Architecture (see Architecture, p. 59 below), to the School of Music for courses leading to the degree of Bachelor of Music (see Music, p. 59 below), or to the School of Practical Arts in Teachers College for work leading to the degree of Bachelor of Science in Practical Arts should in general take the following courses unless their equivalents have been offered for admission:

| | |
|---|----------|
| English A or a more advanced course in rhetoric..... | 6 points |
| English Literature: two half-year courses..... | 6 " |
| French, German, Italian, Spanish: two half-year courses in each of two modern languages, preferably French and German..... | 12 " |
| History A or a more advanced course in history..... | 6 " |
| Physical Education A and B..... | 4 " |
| Botany, Chemistry, Geology, Physics, or Zoölogy: two half-year courses in each of two natural sciences that have not been offered for entrance, at least..... | 12 " |
| Elective courses to complete the total of..... | 64 " |

Candidates who intend to transfer to the School of Journalism (see Journalism, page 60 below) are required to take 76 points of work (including 4 points in Physical Education) in Barnard College as indicated in the following schedule:

First Year

| | |
|---|----------|
| English A1-A2..... | 6 points |
| *A modern language course..... | 6 " |
| Introductory Science 1-2 (with outside reading)..... | 6 " |
| History A1-A2..... | 6 " |
| Philosophy A1-A2, or 61-62, or a science or a language ^x | 6 " |
| Physical Education A1-A2..... | 2 " |
| Politics 1-2..... | 6 " |

38 points

Second Year

| | |
|--|----------|
| Economics A1-A2..... | 6 points |
| English B5-B6..... | 6 " |
| English B9-B10..... | 6 " |
| English 19-20, or a continuation course in language..... | 4 " |
| History 9-10 and 19-20..... | 8 " |
| History 15-16..... | 6 " |
| Physical Education B1-B2..... | 2 " |

38 points

^x Candidates who enter under Foreign Language Requirement *c* (see page 19), must continue both French and German; those who enter under *d* must continue German, and those who enter under *e* must continue French, in the first year.

IV COURSES IN THE GRADUATE FACULTIES AND PROFESSIONAL SCHOOLS OPEN TO BARNARD STUDENTS**Political Science, Philosophy, and Pure Science**

Certain graduate courses in Columbia University under the Faculties of Political Science, Philosophy, and Pure Science are open, with the consent of the department concerned and the Committee on Instruction, to specially qualified seniors. They may be counted towards the Bachelor's degree, or in case the student has more points than the number required for that degree they may, under certain circumstances, be credited towards the Master's degree.¹ Some of these courses are mentioned at the end of the departmental statements given below. For full information students are referred to the appropriate University announcement.

Architecture

Certain courses in the School of Architecture are open to regular students in Barnard College, and may be credited towards the Barnard degree. They are described below in the departmental statement on page 88.

After two years of collegiate work in Barnard, amounting to at least 72 points' credit and including French A or its equivalent, a student may transfer without examination to the School of Architecture in Columbia University and become a candidate for the degree of Bachelor of Architecture. The course in the School of Architecture leading to this degree includes 150 points of work and generally requires four years for its completion.

For full information, students are referred to the appropriate University Announcement.

Music

Courses in the history and theory of music and in composition, given in the School of Music, are open to regular students in Barnard College and may be credited towards the Barnard degree. They are described below in the departmental statement on page 95.

After two years of collegiate work in Barnard, amounting to at least 62 points' credit, a student may transfer without examination to the School of Music in Columbia University and become a candidate for the degree of Bachelor of Music. The course in the School of Music leading to this degree includes 75 points of work and generally requires at least two years for its completion.

For full information students are referred to the appropriate University Announcement.

Students wishing to combine collegiate work with vocal or instrumental training may, while pursuing courses at Barnard, enroll as regular students at the Institute of Musical Art, Claremont Avenue and 122d Street. They must obtain the consent of the Dean of Barnard College and the Director of the Institute. Work at the Institute will not be counted towards the Barnard degree and must be paid for separately.

¹ See p. 14 of the Announcement of the Faculties of Political Science, Philosophy, and Pure Science.

Education

Certain courses in the history and theory of education given by Teachers College are open to regular students in Barnard College and may be credited towards the Barnard degree. They are described in the departmental statement on page 84 below.

On account of the change in the entrance requirements of the School of Education, it will no longer be possible for a student to arrange her work in such a way as to earn a professional diploma from Teachers College at the same time as her academic degree from Barnard College. Beginning July 1, 1914, Teachers College will cease to matriculate in the School of Education candidates for any degree below that of Master of Arts, excepting in the departments of Elementary, Kindergarten, and Practical Arts education. All Barnard students desiring to enter the School of Education must first complete the work demanded for the Bachelor's degree under the Faculty of Barnard College. Under certain circumstances, however, seniors who have nearly completed the requirements for graduation may, while registered in Barnard College, elect one or more courses in the School of Education and have these credited later towards the degree of Master of Arts.¹ For full details regarding the work in Education the student is referred to the current Announcement of the School of Education.

Journalism

After two years of collegiate work in Barnard, amounting to at least 76 points' credit and including certain prescribed courses (see page 58), a student may transfer without examination to the School of Journalism of Columbia University and become a candidate for the degree of Bachelor of Literature. The course in the School of Journalism leading to this degree generally requires for its completion two years in addition to the two years of collegiate work in Barnard College.

For full information, students are referred to the Announcement of the School of Journalism.

Religion

Certain courses in the Union Theological Seminary are open, with the consent of the Committee on Instruction and the President of the Seminary, to specially qualified seniors, and may be counted towards the Barnard degree.

Philanthropy

Exceptional advantages are available for students desiring to specialize in economics, sociology, and social economy, in preparation for social and

¹ See p. 14 of the Announcement of the Faculties of Political Science, Philosophy, and Pure Science.

philanthropic work. Besides the courses given at Barnard in economics and social science, certain graduate courses in this department of Columbia University are open, with the consent of the department and of the Committee on Instruction, to specially qualified seniors. Because of the affiliation between the College and the New York School of Philanthropy, certain courses in the latter institution may also be pursued, with the consent of the Department of Economics and of the Committee on Instruction, and the approval of the Director of the School, by specially qualified seniors, and counted towards the Barnard degree. No extra tuition fee is required. The purpose of this School is to fit men and women for social service in either professional or volunteer work. It offers valuable courses in the housing problem, child helping agencies, the treatment of the criminal, family rehabilitation, the social settlement movement, and kindred subjects. By taking some of this work in her senior year, a Barnard student may anticipate part of the requirements for the diploma of the School of Philanthropy.

ADVICE TO STUDENTS

At the opening of the year the incoming students shall register as is customary, and shall make out their elective blanks subject to the approval of the Committee on Instruction. During the months of November and December each member of the freshman class shall confer with the Dean, or with a Faculty adviser appointed by the Dean, regarding her studies and other matters that may be of interest to her. During the month of April, after the appearance of the catalogue, each freshman shall consult with any instructor she may choose regarding her election of courses for the sophomore year. No elective blank shall be considered by the Committee on Instruction that does not bear the signature of the adviser.

Before November 1 all deficient students shall consult with the Dean. In April students shall, as during the freshman year, fill out elective blanks subject to the approval of the adviser. The adviser may be any instructor in Barnard College whose work the student has taken in the freshman or the sophomore year, but should preferably be an instructor in the department in which the student means to elect her major subject, which should be chosen not later than the end of the sophomore year. Before May 1 elective blanks bearing the signatures of the adviser and the student shall, as usual, be submitted to the Committee on Instruction for approval.

In April students shall make out elective blanks as in the preceding year. The adviser should be from the department in which the student has elected her major subject and should, as a rule, be the same as the adviser chosen at the end of the sophomore year. Elective blanks shall be filed in accordance with the usual regulations and submitted to the Committee on Instruction for approval. Whenever necessary, the Dean will consult with particular students.

During the senior year students will be advised as necessary in individual cases. They should freely consult the Dean and their instructors, **The Senior Year** who will gladly give advice either as to the college courses they are taking or concerning possibilities in various lines of work after graduation.

GENERAL REGULATIONS REGARDING EXAMINATIONS IN COURSE, CREDIT, AND ADVANCEMENT

Two series of examinations are held every year, one in January and the other in May. These are the only stated examinations. **Stated Examinations** In 1915, the mid-year examinations begin on Wednesday, January 20, the final examinations on Monday, May 17.

All students are expected to attend regularly and promptly all the exercises in the courses for which they are registered. Any considerable **Absences** amount of absence or tardiness will result in the lowering of a student's mark or the loss of one or more points of credit for the course. At the end of each term each student shall file in the Registrar's office, on blanks provided for that purpose, a list of her absences and tardinesses with the reasons therefor. After considering these excuses and the reports from the instructors, the Committee on Instruction will adjust marks and credits.

Special examinations are held as follows: in the first week of March **Special Examinations** of each year, and within the two weeks preceding the opening of the College in the fall.

Such examinations are open, by permission of the Provost, on recommendation of the Committee on Instruction, to:

(a) Students who have received F (or D in excess of 6 points), provided that, in the opinion of the instructor, the term work has been good enough to make repetition in class or laboratory unnecessary. Ordinarily F (or D in excess of 6 points) in prescribed work involves repetition of the course;

(b) Students who have been absent, for imperative reasons, from the stated examination in any course;

(c) In rare instances, for reasons of weight, to other students.

In all cases application for permission to take a special examination must be made in writing.

For any such series of examinations, or any such single examination taken at any time other than the stated examination period immediately following the conclusion of the course or courses involved, a fee of \$5 must be paid to the Bursar before the student is admitted to the examination.

The student's performance in a course is rated according to the following grades: A, excellent; B, good; C, fair; D, poor; F, failure.

No student may count for promotion from any class to the next higher class more than six (6) points of D work or may be credited with more **Grades and Credit** than six (6) points of D work during her senior year. In case more than four years is required for her degree, not more than twenty-four (24) points of D work altogether

may count for the degree. Of several courses in which a student is marked D she may choose the ones to be counted.

At the end of every half-year, when all the reports are filed in the Registrar's office, additional credit for high standing is given as follows:

The mark A in courses aggregating six points of work (no course to be counted twice) entitles the student to one point of extra credit, provided she has satisfactorily completed all the work of the half-year, and has not fallen below the mark B in any course.

Matriculated students whose record as to entrance conditions and the completion of prescribed courses is satisfactory to the Committee on Instruction, are classified as follows:

Freshmen, those who have completed less than 26 points of college work;

Sophomores, those who have completed 26 points; Classification of Students

Juniors, those who have completed 58 points;

Seniors, those who have completed 90 points.

In all cases the requirements for promotion must be met in full before the beginning of the academic year.

A student who fails to meet the requirements for advancement from one class to another may, with the consent of the Provost, on the recommendation of the Committee on Instruction, remain in College and repeat the course or courses in which her deficiency exists, or, in the case of elective courses, other courses equivalent thereto in time. She may not, however, register as a special student.

Should a student fail of advancement in two successive years, she shall be permanently dismissed from the College, unless, for reasons of weight, the Provost, on the recommendation of the Committee on Instruction, shall otherwise determine.

SCHOLARSHIPS

There are, altogether, forty-four scholarships and four special funds for the benefit of students who need financial aid. The value of each of these scholarships, unless otherwise stated, is \$150 annually, which sum is applicable to the fees of the year. Under certain circumstances those scholarships known as Student Scholarships may be divided between two applicants.

The scholarships are of two sorts, competitive and non-competitive. Some of the competitive scholarships are awarded to entering freshmen for excellence in entrance examinations. Others are awarded to students already in Barnard for excellence in their college work. The non-competitive scholarships are awarded to students needing financial aid, and, as a rule, only to those who have passed at least one year in college. They are held, unless otherwise stated, for one year only.

Two scholarships may not be held by the same person. Should two

scholarships be assigned to the same student in one year, she must at once choose which she will retain. If a student fail to maintain **Conditions** a grade of at least C in all courses which she pursues, or if for any other reason she show herself an unsatisfactory candidate, she shall forfeit her scholarship and, in the case of non-competitive scholarships, shall be ineligible for re-election the following year. No student with entrance conditions unremoved, or with a grade below C in the year previous to that in which she is asking for help, shall be eligible for a scholarship. For competitive entrance scholarships a complete set of entrance examinations, *i. e.*, a total of fourteen and a half ($14\frac{1}{2}$) units, is required. These examinations should, as a rule, be taken in June, since the scholarships are generally awarded before the beginning of the first half-year; they may be taken, if the candidate so desire, in two successive Junes. Scholarships vacant in February may, however, be awarded to candidates entering at that time on the January examinations.

Before the first of April of each year all applications for non-competitive scholarships, accompanied with full credentials, must be filed at the Dean's **Application** office upon special blanks to be obtained there. Candidates for the competitive scholarships to be awarded on the basis of the June examinations should, in their application to the Secretary of the College Entrance Examination Board (see p. 20), mention the Barnard College scholarships for which they are competing. For the Pulitzer Scholarships, the Martha T. Fiske Scholarship, and the Jessie Kaufmann Scholarship, application must be made to the Secretary of Barnard College before the first of May. In order to qualify for the receipt of her stipend, the holder of a scholarship should report at the office of the Registrar not later than the first day of the academic year.

COMPETITIVE SCHOLARSHIPS

These, subject to the foregoing general regulations for scholarships, are as follows:

I. *Open to entering freshmen:*

Trustees' Competitive Scholarship.....

I

Awarded annually by the Board of Trustees to the student who in June passes the best complete entrance examinations in all subjects. It may be held for one year only. In case there is no award in June, this scholarship may be awarded the following February to a candidate entering at that time. In this event, it may be held for one half-year only.

Jessie Kaufmann Scholarship.....

I

Founded in 1902 by Mr. Julius Kaufmann in memory of his daughter, Jessie Kaufmann. The annual income from \$4000 is awarded on the merits of the entrance examinations to a student who, after careful investigation, is found to have no relative able to assist her financially. It may be held for the entire college course.

Brooklyn Scholarships..... 12

Founded in 1895 by the Trustees of Columbia University in recognition of the gift to Columbia University by President Low of a memorial building for the University Library. They are open to students who have received their training in either the public or the private schools of Brooklyn, N. Y., and are residents of that city. Three of these scholarships will be awarded annually to qualified competitors who pass in June, without conditions, the best complete entrance examinations in all subjects. They may be held for the entire college course, but a holder, while retaining the title "Brooklyn Scholar," may transfer the income to any properly qualified candidate from Brooklyn without having her action made a matter of public record.

Lucille Pulitzer Scholarships..... 7

Founded by the late Joseph Pulitzer in memory of his daughter, Lucille Pulitzer. They are of two kinds, Residence Scholarships and Non-residence Scholarships.

The Residence Scholarships carry an income of \$600 a year apiece and are open to women who are not residents of New York City or its vicinity. They are awarded on the merits of entrance examinations taken under the College Entrance Examination Board and on the candidate's general character and power of leadership. The examinations may be taken, if the candidate so desire, in two successive Junes. The scholarships may be held throughout the college course, provided the recipients continue to maintain a high rank in their college work. The holders are required to reside in Brooks Hall, the Barnard hall of residence. Four of these scholarships are now available. One will be awarded in 1914.

The Non-residence Scholarships are awarded to students entering the College from the city of New York who are found to have passed excellent entrance examinations and to be worthy of financial aid. They may be held for the first three years of the college course only.

The first (a), founded in 1899, carries an annual income of \$400 and will be awarded in 1915, 1918, and corresponding years.

The second and third, given in 1903, carry annual incomes of \$325 each; (b) will be awarded in 1916 and 1919, (c) in 1914 and 1917, and corresponding years.

Martha T. Fiske Scholarship..... 1

Founded in 1911 by Miss Anna E. Smith, in memory of her sister, Mrs. Martha T. Fiske-Collord. It carries an annual income of \$200. It is awarded, on the basis of scholarly ability and general character, to some deserving candidate not a resident of New York City or its suburbs, and may be

held throughout the college course, provided the recipient continues to maintain a satisfactory standing. It will be awarded in 1914.

2. *Open to students who have passed at least one year in college:*
Eleonora Kinnicutt Scholarship.....

Founded in 1911 in memory of Mrs. Francis P. Kinnicutt, who was a Trustee of Barnard College. It carries an annual income of \$200. It is awarded at the end of the freshman year to a student of exceptionally high standing, and may be held for three years, provided the recipient continues to maintain a high rank. It will be awarded in 1915 and 1918.

Emma A. Tillotson Scholarship.....

Founded in 1910 by the late Mrs. Luther G. Tillotson. It carries an annual income of \$200. It is awarded at the end of the freshman year to a student of exceptionally high standing, and may be held for three years, provided the recipient continues to maintain a high rank. It will be awarded in 1916 and 1919.

William Moir Scholarships.....

Founded in 1912 by the late Mrs. William Moir, in memory of her husband. Each scholarship carries an annual income of \$200.

The first (a) is awarded at the end of the freshman year to a student of exceptionally high standing who is in need of assistance, and may be held for three years, provided the recipient continues to maintain a high rank. It will be awarded in 1914 and 1917.

The second (b) may be awarded to a student of any class who has shown exceptional scholarly ability and who is in need of assistance.

NON-COMPETITIVE SCHOLARSHIPS

These, subject to the general regulations for scholarships, are as follows:
Student Scholarships.....

4

These are supported by the income of a permanent fund that is being established and that at present amounts to \$9680 and of the Arthur Brooks Fund (see below). They are not, as a rule, assigned to incoming students.

Ella Weed Scholarship.....

Founded in 1895 by the pupils of Miss Anne Brown's School in memory of Miss Ella Weed, who was chairman of the Academic Committee of the Board of Trustees of Barnard College during the first five years of its existence.

Veltin School Scholarship.....

1

Founded in 1905 by the alumnae of Mlle. Veltin's School.

| | |
|--|---|
| Jennie B. Clarkson Scholarship..... | I |
| Founded in 1898 by the late Mrs. W. R. Clarkson | |
| Emily James Smith Scholarship..... | I |
| Founded in 1899 by Miss Emily H. Bourne in honor of Miss Smith, then Dean of Barnard College. It is awarded in conference with the founder. | |
| Anna E. Barnard Scholarship..... | I |
| Founded in 1899 by Miss Emily H. Bourne in honor of Mrs. John G. Barnard. It is awarded in conference with the founder. | |
| Brearley School Scholarship..... | I |
| Founded in 1899 by pupils and former pupils of the Brearley School. | |
| Eliza Taylor Chisholm Memorial Scholarship..... | I |
| Founded in 1901 by the Alumnæ Association of Miss Chisholm's School, which Association reserves the privilege of precedence for such candidates as it may recommend. | |
| Graham School Scholarship..... | I |
| Founded in 1907 by the Graham Alumnæ Association. | |
| Mrs. Donald McLean Scholarship | I |
| Founded in 1906 by the New York Chapter of the Daughters of the American Revolution. It is awarded, in conference with a representative of the Chapter, to a deserving student who agrees to pursue the study of history (chiefly that of the United States) continuously throughout her college course. | |
| Emma Hertzog Scholarship..... | I |
| Founded in 1904 by gifts from residents of Yonkers, N. Y. It is awarded in conference with the Faculty of the Yonkers High School, to a graduate of that school who is entering Barnard College. | |
| Mrs. Henry Clarke Coe Scholarship..... | - |
| Founded in 1910 by the National Society of New England Women. It is awarded, on the nomination of the chairman of the Scholarship Committee of the above Society, to a student from New England or of New England parentage, and after the award is once made the Society requires from the beneficiary full obedience to discipline and the highest ideals of scholarship. This may be awarded to an entering freshman. | |
| Mary Barstow Pope Scholarship..... | I |
| Founded in 1913 in memory of Mary Barstow Pope, sometime teacher in Miss Chapin's School, by her friends, her fellow-teachers, and her pupils. It is open to any undergraduate of Barnard College for the whole or any part of her course, and is awarded on the nomination of a self-perpetuating committee representing the founders. | |

Charles E. Bogert Memorial Scholarship, and
Anna Shippen Young Bogert Memorial Scholarship 2

Founded in 1913 by the late Mrs. Annie P. Burgess. Each of these scholarships represents the annual income of a fund of \$5000, and is awarded to a worthy and deserving student of good Christian character who is unable to pay her own expenses.

SPECIAL FUNDS FOR THE AID OF NEEDY AND DESERVING STUDENTS

Arthur Brooks Fund.

A fund of \$5000, given in 1897 by Miss Olivia E. Phelps Stokes as a memorial of the Reverend Arthur Brooks, D.D., Rector of the Church of the Incarnation and Chairman of the Board of Trustees of Barnard College during the first six years of its existence. This fund is at present applied to the maintenance of the Student Scholarships.

Fiske Scholarship Fund.

A fund of \$5000 given by the late Mrs. Martha T. Fiske-Collord, the income of which is placed at the disposal of the Dean of Barnard College.

George W. Smith Scholarship Fund.

A fund of \$5000 given in 1906 by the late Mrs. Martha T. Fiske-Collord as a memorial to Mr. George W. Smith, who was a Trustee of Barnard College. The income of the fund is placed at the disposal of the Dean of the College.

Charles Stewart Smith Scholarship Fund.

Established in 1911 in memory of the late Charles Stewart Smith, who was a Trustee of Barnard College. It provides an annual income of \$250, which is used to assist needy and deserving students.

GRADUATE FELLOWSHIP

Established by an anonymous donor in 1912. It is of an annual value of \$600. The holder is to pursue a year of graduate study at Columbia or any other university or college of approved standing. This Fellowship is awarded each year as an academic honor to that member of the graduating class of Barnard College who, in the opinion of the Faculty, shows most promise of distinction in her chosen line of work. Should the recipient prove in no need of financial assistance, she may retain the title and honor, but resign the income, which will then be used for other fellowships or scholarships. This Fellowship is not to be applied for, but is awarded each year as soon as possible after the mid-year examinations. Students who have graduated in February are eligible, as well as those who are to graduate in June.

PRIZES

The following prizes are awarded annually, on the recommendation of the appropriate departments of the Faculty of Barnard College, in accordance with the special conditions named below. No prize will be awarded to any student who falls below grade C in any course during the year in which she is a competitor.

HERRMAN BOTANICAL PRIZE

A prize of \$50, founded by the late Mrs. Esther Herrman, is awarded annually to the most proficient undergraduate student in botany.

KOHN MATHEMATICAL PRIZE

A prize of \$50, founded by Mrs. S. H. Kohn, is awarded annually to a senior for excellence in mathematics. Competitors for this prize must have pursued mathematics continuously during their college course.

THE JENNY A. GERARD MEDAL

The Jenny A. Gerard Gold Medal, given in 1908 by the Society of the Colonial Dames of America in memory of Mrs. James Gerard, late President of the Society, is awarded annually to the undergraduate student of American birth in Barnard College who is most proficient in American Colonial History.

SPERANZA PRIZE IN ITALIAN

A prize of \$50, founded by a former student in memory of the late Carlo Leonardo Speranza, Instructor and Professor of Italian at Barnard from 1890 until 1911, is awarded annually to a student in Barnard College for excellence in Italian.

VON WAHL PRIZE

A prize of \$100, established in memory of Constance von Wahl, 1912, President of the Undergraduate Association, will be awarded in 1914 and 1915 to that member of the graduating class who, in the opinion of the Faculty and of her fellow-students, has best exemplified those high qualities of character which Constance von Wahl herself represented during her college life—that is, devotion to high ideals of duty and helpfulness, and effective service to her fellow students and to the College.

The following prizes of Columbia University are by their terms open to students of Barnard College.

THE BUNNER MEDAL

The H. C. Bunner Gold Medal, established by the friends of the late Henry Cuyler Bunner, is awarded annually at Commencement to the candidate for a Columbia degree who shall present the best essay on an assigned subject in American literature. The award will be made by a committee to be appointed by the President. The subject for the essay

to be handed in May 1, 1914, is "The American Annual before 1850"; in 1915, "Edward Everett as an Orator."

EARLE PRIZE IN CLASSICS

A prize of \$50, established in memory of Mortimer Lamson Earle, Instructor in Greek in Barnard College from 1889 to 1895 and from 1898 to 1900, and Professor of Classical Philology from 1900 to 1905, is open for annual competition to all candidates for the degree of Bachelor of Arts. It is awarded partly on the basis of the regular work of the year in Greek and in Latin, partly on the basis of a special examination. The special examination covers specified portions of Greek and Latin literature, sight reading in Greek and in Latin, and prose composition in Greek and in Latin. The special subjects for 1915 are Vergil, *Georgics*, Books I and II, and Herodotus, Book V.

For the award in 1915, the examination will be held in January. Students are urged to do much of their work for the examination during the preceding summer vacation.

THE CAROLINE PHELPS STOKES PRIZE

The Caroline Phelps Stokes Prize of \$40 is awarded annually at Commencement to that student who, having been regularly enrolled in Columbia College or Barnard College or Teachers College as a candidate for an academic degree, for not less than one academic year, shall be deemed to have written the best essay upon an assigned topic bearing upon the rights of man. The subject for the essay to be handed in May 1, 1914, is "The Rights of Man as They Appear in the Policy of the English Liberals of the Twentieth Century"; use may be made, for guidance in reading and reflection, of L. T. Hobhouse's *Liberalism* and C. H. Hayes' *British Social Politics*. In 1915, the essay should deal with some particular aspect of the general principle of the right of the weaker to protection from or support by the stronger; as for example (1) the control of trusts or combinations in restraint of trade, whether capitalistic or labor, (2) employers' liability, (3) old age insurance.

HONORS

Departmental honors are awarded for high excellence in the work of any department, under the following regulations:

Depart-
mental
Honors

No honors shall be awarded to freshmen or special students or to any student whose work falls below C in any course taken by her in the year of her candidacy.

No honors shall be awarded to students on elementary courses only and in no case may more than one full year elementary course be counted in the total necessary for honors.

First year honors in any department shall be awarded at the end of any year to any student, of at least sophomore standing, who has taken at least 12 points of work in that department, of which 12 points at least 6 points

shall be of grade A and none below grade B, and who has done extra work required by the department, and who is certified by the department as worthy of honors.

Second year honors in any department shall be awarded to a student of at least junior standing, who has taken at least 18 points of work in that department, of which 18 points at least 12 points shall be of grade A and none below grade B, who has done extra work required by the department, and is certified by the department as worthy of honors.

Third year honors in any department shall be awarded at graduation to any student who has taken at least 24 points of work in that department, of which 24 points at least 18 points shall be of grade A and none below grade B, who has done extra work required by the department, and is certified by the department as worthy of honors.

With the consent of the departments concerned and of the Committee on Honors, part of the 12, 18, or 24 points of work required for departmental honors may be taken in an allied department.

Final honors in any department shall be awarded to any student who has obtained honors in that department for three successive years.

Candidates for honors shall confer with the department concerned and shall announce their candidacy in writing to the Registrar not later than December 10 of the academic year in which they wish to take honors.

The amount of extra work required for honors shall correspond approximately to that accepted for one point of regular college credit.

For general excellence in the work of the college course honors may be awarded at graduation, under the following regulations:

The Faculty of Barnard College, on the recommendation of the Committee on Honors, may recommend that the degree CUM LAUDE be awarded to any student who has obtained grade A in at least 62 points of the work of the college course, and who has not fallen below grade B in more than 31 points of the work of the college course, and who has twice received departmental honors; or to any student who, without receiving departmental honors, has obtained grade A in at least 74 points of the work of the college course, and who has received no grade below C, and who has not received C in more than 12 points of work.

Degrees
with
Honors

The Faculty of Barnard College, on the recommendation of the Committee on Honors, may recommend that the degree MAGNA CUM LAUDE be awarded to any student who has obtained grade A in at least 90 points of the work of the college course, and who has never fallen below grade C, and who has received final honors in some department, or first and second year honors in each of two departments; or to any student who, without receiving departmental honors, has obtained grade A in at least 102 points of the work of the college course and who has received no grade lower than B.

RESIDENCE HALL

Brooks Hall, the residence hall for Barnard College students, will open on Monday, September 21, 1914, and will close on Saturday, June 5, 1915. Candidates for admission or students who wish to secure accommodations in Brooks Hall during the week of the September entrance or deficiency examinations should make arrangements directly with the Secretary of the Hall, not later than September 1.

Full information in regard to the situation and cost of rooms, the advance deposit, the charge for electric light, and the residence scholarships is published in a separate pamphlet, to be had on application to the Secretary of Brooks Hall. All correspondence regarding accommodations in Brooks Hall should be addressed to the Secretary of the Hall, 607 West 116th Street, New York, N. Y. For the dormitory fees see p. 53.

The post-office address for residents is Brooks Hall, 607 West 116th Street, New York, N. Y.

HEALTH AND PHYSICAL TRAINING

The University Medical Officer, Dr. William H. McCastline, supervises the sanitation of the College and gives personal advice to the students concerning their health. A trained nurse, who lives in Brooks Hall, works under Dr. McCastline's direction in promoting the health of both resident and non-resident students.

Students of Barnard College have the use, at certain hours, of the Thompson Gymnasium of Teachers College. They have also, on Milbank Quadrangle, a practice field for hockey and basketball, and tennis courts. A physical examination is required of each student upon entrance and at the end of the work in physical education prescribed for college students. On the basis of this examination advice is given as to the kind and amount of exercise best adapted to her needs. Each student must also consult with the instructor at least once a month during her freshman and sophomore years. As far as possible the work in physical education is conducted in the open air.

THE UNIVERSITY LIBRARY

The University Library is open each week-day (except Labor Day Thanksgiving, Christmas, New Year's Day, Good Friday, and Independence Day) from 8.30 A.M. until 11 P.M., October-June; and until 10 P.M., July-September. All officers, students, and graduates of all departments of the University have free access to the Library and may draw books for home use.

The Library contains about 530,000 volumes, exclusive of unbound pamphlets and duplicates, and some 35,000 German dissertations. About 8000 carefully selected reference books and many of the most important works on all subjects, in standard editions, representing the leading authors

in all literatures, are placed in the general reading-room directly accessible to all readers.

For the convenience of the undergraduates of Barnard College there is also maintained in the Ella Weed Memorial Reading-room at Barnard College a carefully selected reference library of about 8600 volumes.

An accurate catalogue of the entire Library by authors and subjects is on cards accessible to readers.

PUBLIC LECTURES

Barnard College students may avail themselves of the opportunities offered by the numerous public lectures which are given each year at Columbia University, ordinarily by persons of distinction who are not members of the teaching staff. Students of the University may also frequently enjoy important dramatic and musical performances at reduced cost.

UNIVERSITY PRESS BOOKSTORE

A University bookstore is maintained under the auspices of the Columbia University Press, where officers and students may purchase books and stationery at stated discounts from list prices.

CHAPEL SERVICE

Chapel service is held on Monday and Thursday of each week at 12 o'clock in the college assembly room. The service lasts about twenty minutes and is conducted by the Dean, with an address by some clergyman or lay speaker, or by an officer of the University. Attendance is voluntary.

In St. Paul's Chapel, the chapel of Columbia University, service is held every week-day except Saturday and Wednesday at 12 o'clock and on Sunday afternoon at 4 o'clock. At these services also attendance is voluntary.

Special University services are held in St. Paul's Chapel on the Wednesday preceding the Thanksgiving recess and on the first Wednesday of the second half-year.

STUDENT ORGANIZATIONS

Under the system of self-government in use in the College, the various student organizations are supervised by the Student Council, subject to the general approval of the Faculty. The Council controls the schedules of meetings and entertainments and administers rules of eligibility for office-holding and participation in college plays.

STATISTICS

| | 1889 to 1890 | 1894 to 1895 | 1899 to 1900 | 1900 to 1901 | 1901 to 1902 | 1902 to 1903 | 1903 to 1904 | 1904 to 1905 | 1905 to 1906 | 1906 to 1907 | 1907 to 1908 | 1908 to 1909 | 1909 to 1910 | 1910 to 1911 | 1911 to 1912 | 1912 to 1913 | 1913 to 1914 |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| UNDERGRADUATES, REGULAR: | | | | | | | | | | | | | | | | | |
| Seniors..... | 9 | 40 | 52 | 51 | 50 | 78 | 83 | 81 | 78 | 71 | 63 | 59 | 68 | 62 | 53 | 72 | 86 |
| Juniors..... | 18 | 40 | 39 | 48 | 74 | 79 | 71 | 78 | 110 | 116 | 108 | 122 | 144 | 154 | 144 | 154 | *97 |
| Sophomores..... | 18 | 37 | 51 | 72 | 78 | 72 | 75 | 97 | 88 | 95 | 114 | 109 | 115 | 132 | 155 | 132 | 147 |
| Freshmen (regular)..... | 4 | 26 | 54 | 81 | 98 | 92 | 101 | 110 | 111 | 130 | 135 | 161 | 188 | 185 | 226 | 184 | 252 |
| (partly regular)..... | 10 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 14 | 71 | 171 | 223 | 269 | 294 | 330 | 339 | 367 | 391 | 405 | 451 | 481 | 497 | 584 | 569 | 628 |
| SPECIAL STUDENTS: | | | | | | | | | | | | | | | | | |
| Matriculated..... | .. | 21 | 41 | 27 | 36 | 31 | 27 | 18 | 22 | 5 | 35 | 25 | 24 | 26 | 20 | 16 | 22 |
| Non-matriculated..... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Departmental (1889-1896)..... | 22 | 29 | 37 | 41 | 43 | 29 | 41 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Music students (1896-1904)..... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 22 | 29 | 62 | 78 | 70 | 65 | 72 | 72 | 27 | 23 | 28 | 48 | 47 | 54 | 50 | 56 | 49 |
| GRADUATE STUDENTS (1890-1900): | | | | | | | | | | | | | | | | | |
| | .. | 19 | 82 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TOTAL STUDENTS PRIMARILY REGISTERED AT BARNARD: | | | | | | | | | | | | | | | | | |
| STUDENTS FROM COLUMBIA UNIVERSITY..... | 119 | 315 | 301 | 339 | 402 | 366 | 419 | 453 | 498 | 535 | 547 | 640 | 618 | 684 | | | |
| STUDENTS FROM TEACHERS COLLEGE..... | .. | .. | 18 | 29 | 45 | 41 | 51 | 62 | 57 | 40 | 38 | 59 | 62 | 59 | 45 | 41 | |
| STUDENTS FROM SCHOOL OF PHILANTHROPY..... | .. | .. | .. | 54 | 47 | 45 | 47 | 77 | 95 | 165 | 167 | 182 | 200 | 201 | 146 | 136 | *125 |
| | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| TOTAL STUDENTS FROM OTHER PARTS OF THE UNIVERSITY: | | | | | | | | | | | | | | | | | |
| | .. | 18 | 83 | 92 | 86 | 98 | 139 | 152 | 205 | 218 | 259 | 263 | 259 | 263 | 205 | 183 | 167 |
| TOTAL REGISTRATION: | | | | | | | | | | | | | | | | | |
| DEGREES CONFERRED: | | | | | | | | | | | | | | | | | |
| A.B..... | 36 | 119 | 333 | 384 | 431 | 445 | 500 | 505 | 542 | 624 | 658 | 716 | 794 | 810 | 845 | 801 | 851 |
| B.S..... | .. | 8 | 39 | 50 | 47 | 80 | 83 | 75 | 76 | 97 | 98 | 88 | 103 | 114 | 136 | .. | .. |
| A.M. (1894-1900)..... | .. | .. | .. | 18 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | 3 | .. |
| Ph.D. (1895-1900)..... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TOTAL BACHELORS' DEGREES CONFERRED 1893-1913: A.B., L241; B.S., 9. | | | | | | | | | | | | | | | | | |

* 18 Barnard seniors registered at Teachers College for the professional diploma are included in the senior figures and not among the Teachers College students.

DEPARTMENTAL STATEMENTS

The following general regulations apply to all courses. The paragraphs on "The Program of Studies," pp. 54-61 should be carefully read.

When an announced course has not been applied for by at least three candidates for a degree, the instructor may withdraw it.

Where the hours for laboratory work are not given either in the departmental statement or in the scheme of attendance, they must be arranged after consultation with the officer in charge of the course.

Courses designated by capital letters are prescribed. Elective courses are designated by numbers, odd numbers for the first half-year courses and even numbers for the second half-year courses. A compound course is therefore designated by an odd number and the succeeding even number. The numbers from 1 to 99 inclusive are given to courses open only to undergraduates; the numbers from 101 to 199 inclusive are given to courses open to both undergraduates and graduates; the lower numbers in each case being used for the introductory courses.

In the statement of each course the prerequisites are indicated. When no department is named it is to be assumed that the reference is to a numbered course in the same department.

A hyphenated course (e. g., History A1-A2) is regarded as a full year course of which the first half is always assumed to be a prerequisite for admission to the second half, and, except for reasons of weight, and with the written consent of the instructor, no credit will be given for work dropped at the mid-years or before the completion of the course. A course of which the index signs are separated by a comma (e. g., English A1, A2) is regarded as a divisible course of which the first half-year may be taken separately. Admission to the second half of a divisible course is granted only when all the prerequisites have been met and the written consent of the instructor obtained.

Courses marked with an asterisk (*) are given at Columbia University. *The number of points credit to be assigned for an advanced course numbered over 100 and given at Columbia University is to be determined in each case by the Committee on Instruction of Barnard College in conference with the instructor or the representative of the department concerned.*

Courses marked with a dagger (†) are given at Teachers College. *Work at Teachers College mentioned herein may be pursued only by regularly enrolled students of Barnard College and only when counting for a Barnard College degree. Certain courses not here specified as being open at Teachers College may, through the courtesy of Teachers College and with the consent*

of the Committee on Instruction, be taken by such students. All special students of whatever class should enroll at Teachers College for Teachers College courses.

For further detailed information in regard to topics, text-books, or methods in any particular course, students are referred to the instructors.

INTRODUCTORY COURSES

1-2—Introductory Survey of Natural and Social Sciences. Professors REIMER, MALTBY, JACOBY, OGILVIE, RICHARDS, CRAMPTON, Dr. GOLDENWEISER, Mr. SHENTON, and Professors BEARD and MONTAGUE. 3 points for the year (for Journalism students only, extra reading will be assigned in order to make this course a 6-point course for the year and parallel to the corresponding course in the School of Journalism).

M., W., and F. at 1.

This course consists of eight lectures and assigned readings in each of the following subjects: chemistry, physics, astronomy, geology, botany, zoölogy, anthropology, sociology, politics, and philosophy. It is designed to give all students a general idea of the typical problems, methods, and results of the sciences treated and to afford students intending to specialize in science a basis for making an intelligent choice of subject. This course cannot be counted as fulfilling the prescribed requirement in science for the A.B. or the B.S. degree.

ANTHROPOLOGY

1—General Introductory Course. Professor BOAS. 3 points.

M., W., and F. at 1.

Open to juniors and seniors.

This course will treat of the types of man as determined by race and environment, economic condition, development of industrial arts, languages, social organization, religions, as found in primitive and more advanced society.

2—General Introductory Course. Professor BOAS. 3 points.

M., W., and F. at 1.

Open to juniors and seniors.

Antiquity of man; early migrations; early history of Europe and Asia; the development of cultural types in Africa, Australia, the Islands of the Pacific Ocean, and America.

Courses 101, Introduction to Anthropology, Professor BOAS; 102, Methods of Anthropological Research, Professor BOAS; 104, Prehistoric Archaeology of America, Professor SAVILLE; 105-106, Anthropometry, Professor BOAS; 111-112, Archaeology of Mexico and Central America, Professor SAVILLE; 113-114, Archaeology of Northwestern South America, Professor SAVILLE; 117-118, American Languages, Professor BOAS; 129-130, Ethnography of Africa and the Islands of the Pacific Ocean, Dr. GOLDENWEISER; 131-132, Ethnography of Europe, Professor BOAS; 133-134, Ethnography of America and Siberia, Dr. GOLDENWEISER; 137-138, General Ethnology: Material Culture, Dr. GOLDENWEISER; 139-140, General Ethnology: Social Organization and Religion, Dr. GOLDENWEISER, given at Columbia University, are open, with the consent of the Department of Anthropology and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Philosophy, Psychology, and Anthropology.

Architecture. See Fine Arts

ASTRONOMY

1-2—General Astronomy, Introductory Course. Professor JACOBY. Lectures, 2 points, with third hour, 3 points.

In 1914-15 this course will be given in abbreviated form entirely in the second half-year.

Tu. and Th. at 1 and a third hour to be arranged during part of the year in the evening, at the Wilde Observatory.

Prerequisite: Mathematics A1, A2.

This course is introductory and descriptive, intended for students who do not desire to specialize. The lectures are illustrated by experiments and the stereopticon. Observatory work includes observation of the sun and moon, planets, satellites, nebulæ, and stars.

Course 103, 104, Practical Astronomy, Professor JACOBY, given at Columbia University, is open, with the consent of the Department of Astronomy and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Mathematical and Physical Science.

BOTANY

51-52—Principles of the Morphology and Physiology of Plants. Professor RICHARDS, Miss LATHAM, and Miss STEWART. 2 lectures, 4 hours of laboratory work. Demonstrations to accompany lectures. 8 points.

Lectures M. and F. at 9. Demonstrations and conferences W. at 9. A special laboratory section will be arranged on two afternoons in the week for students who have passed the entrance examination in botany and wish to obtain full credit for the course.

Laboratory fee \$2.50.

53-54—Comparative Morphology and Development of Plants, Study of Types. Professor HAZEN and Miss STEWART. 2 lectures, 4 or 6 hours of laboratory work. 8 or 10 points.

Tu. and Th. at 10.

Laboratory fee, \$2.50.

Prerequisite: Course 51-52. Course 53-54 is not open to freshmen.

55-56—Structure and Relationship of Flowering Plants. Professor HAZEN. 1 hour lecture or conference, 4 or 6 hours of laboratory work. 6 or 8 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Course 51-52 or Entrance Botany.

This course is designed to give practice in the recognition of characteristic floral types. Field work may be substituted for some of the laboratory work.

153—Anatomy of Vascular Plants. Miss LATHAM. 2 lectures and a minimum of 6 hours of laboratory work. 5 points.

Tu. and Th. at 11.

Laboratory fee, \$2.50.

Prerequisite: Course 53-54 or 55-56 except for seniors on consultation with the instructor.

[154—**Physiology of Plants from Standpoint of Nutrition.** Professor RICHARDS and Miss LATHAM. 2 lectures and a minimum of 6 hours of laboratory work. 5 points.

Laboratory fee, \$2.50.

Prerequisite: Course 153 and some knowledge of chemistry.

Not given in 1914-15.

Courses 154 and 156 are given in alternate second half-years.

156—**Physiology of Plants from Standpoint of Growth.** Professor RICHARDS and Miss LATHAM. 2 lectures and a minimum of 6 hours of laboratory work. 5 points.

Tu. and Th. at 11.

Laboratory fee, \$2.50.

Prerequisite: Course 153 and some knowledge of chemistry.

Courses 154 and 156 are open to students only after consultation with the instructor.

158—**Structure and Development of Algæ.** Advanced course. Professor HAZEN. 1 lecture and 6 or 8 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Courses 51-52 and 53-54.

159—**Structure and Development of Fungi.** Advanced course. Professor RICHARDS. 1 lecture and 6 or 8 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Courses 51-52 and 53-54.

Courses 158 and 159 are given either the first or second half-year to suit the convenience of the instructors and students.

160—**Embryology and Laboratory Methods.** Practice in methods of technique, with the study of the embryology of one or more types. Professor HAZEN and Miss LATHAM. 8 hours of laboratory work with occasional lectures and outside reading. 4 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Course 153; parallel: Course 154 or 156.

161, 162—**Advanced Physiology and Morphology.** Professors RICHARDS, HAZEN, and Miss LATHAM.

Laboratory fee, \$2.50 for each half-year.

Work will be arranged to suit the needs of the students, and credit will be given according to the amount accomplished. While the topics assigned in this course usually involve only individual work of an advanced nature, lectures will be given and reading assigned, if a sufficient number of properly qualified students desire them. Some form of essay is usually demanded in connection with the other work.

Open to students only after consultation with the instructor. With the permission of the instructor this course may be taken in successive years.

Journal Club. The advanced students and instructors meet to read and discuss recent books and papers.

CHEMISTRY

Students are requested to elect courses in the following order: 5-6, 63, 64, 41-43, 43-44.

5-6—General Inorganic Chemistry. Professor REIMER, Miss KELLER, Miss YATES, and Miss TURCK. 5 hours, including lectures, discussions, and laboratory work. 6 points.

M., W., and F. at 11. Laboratory work, Tu., W., or Th., 2-4.30; in order to obtain full credit for the course, students who have passed the entrance examination in chemistry must take the special laboratory course on M., 2-4.30.

Laboratory fee, \$4.00.

41-42—Organic Chemistry, Elementary Lecture Course. Professor REIMER. 3 hours. 6 points.

Tu. and Th. at 9 and a third hour to be arranged.

Prerequisite: Course 5-6. It is urged that Course 43-44 be taken with this course.

43-44—Organic Chemistry, Elementary Laboratory Course. Professor REIMER. A minimum of 6 hours. 6 points.

Hours to be arranged.

Laboratory fee, \$15.00.

Prerequisite: Courses 5-6, 41-42. Recommended as a parallel to Course 41-42.

This course is designed to teach the student the important methods of preparation of organic compounds.

63—Qualitative Analysis. Miss KELLER. 3 lectures and 8 hours of laboratory work. 7 points.

Tu. and Th. at 10 and a third hour to be arranged; laboratory work, 8 hours, to be taken on M., Tu., and Th. afternoons, 1-4.30.

Laboratory fee, \$6.00.

Prerequisite: Course 5-6.

The lecture work of this course consists of a study of the elements, especially of the metals, and of methods of qualitative analysis.

64—Quantitative Analysis. Miss KELLER. 3 lectures and 8 hours of laboratory work. 7 points.

Tu. and Th. at 10 and a third hour to be arranged; laboratory work, 8 hours, to be taken on M., Tu., and Th. afternoons, 1-4.30.

Laboratory fee, \$6.00.

Prerequisite: Courses 5-6 and 63.

This course deals with fundamental quantitative methods and with such theoretical problems as are involved in analytical processes.

105-106—Inorganic Chemistry, Advanced Course. Miss KELLER. 3 lectures and a minimum of 6 hours of laboratory work. 12 points.

M., W., and F. at 1.

Laboratory fee, \$20.00.

Prerequisite: Courses 5-6, 63, 64, and Physics 1-2 or 11-12.

This course is designed to supplement Courses 63 and 64. The lectures are devoted to a detailed discussion of the elements, and advanced, theoretical chemistry. The laboratory work consists of practice in mineral analyses and physical-chemical measurements.

[145-146]—Organic Chemistry, Advanced Course. Professor REIMER. 3 lectures and a minimum of 6 hours of laboratory work. 12 points.

Laboratory fee, \$20.00.

Prerequisite: Courses 5-6, 41-42, 43-44, 63, 64.

This course is designed to supplement Courses 41-42 and 43-44. It is a more comprehensive discussion of the most important classes of organic compounds and their relations to each other. Special emphasis will be given to recent theories as to the structure of the compounds and the mechanism of their reactions. The laboratory work consists of the preparation of organic compounds discussed in the lectures and the study of their reactions. In the second half-year, some special problem is assigned to each student.

Not given in 1914-15.]

Journal Club. 1 hour. The advanced students and the instructors meet for reports and discussion on recent scientific papers.

CLASSICAL PHILOLOGY

Greek

1-2—Elementary Course. Grammar, Composition, Xenophon's *Anabasis*. Professor HIRST. 6 points.

M., W., and F. at 2.

Prerequisite: Elementary Entrance Latin.

This course may not be begun in the second half-year.

[3]—Homer's *Iliad* and Greek Prose Composition. 3 points.

Not given in 1914-15.]

5 (old number 3)—Homer and Lucian. Professor VAN HOOK. 3 points. M., W., and F. at 1.

Prerequisite: Courses 1-2 and 3 or Elementary Entrance Greek.

Prescribed for freshmen taking the A.B. course, unless they offered Advanced Latin at entrance or take Latin A in college.

6 (old number 4)—Lucian and Plato. Professor YOUNG. 3 points. M., W., and F. at 1.

Prerequisite: Courses 1-2 and 3 or Elementary Entrance Greek.

Prescribed for freshmen taking the A.B. course, unless they offered Advanced Latin at entrance or take Latin A in college.

9-10—Prose Composition. First Course. Mr. MESSEY. 4 points.

Tu. at 11.

May be taken in connection with any other course (except courses 1-2 and 3), but not separately.

11—Euripides and Sophocles. Professor HIRST. 3 points.

M., W., and F. at 11.

Prerequisite: Advanced Entrance Greek or Courses 5, 6.

12—Greek Oratory. Professor VAN HOOK. 3 points.

M., W., and F. at 11.

Prerequisite: Advanced Entrance Greek or Courses 5, 6.

[**13—Rapid Reading of Homer.** 2 points.

Not given in 1914-15.]

[**14—Rapid Reading of Herodotus.** 2 points.

Not given in 1914-15.]

Courses 13, 14 and 15, 16 are given in alternate years.

15—Lucian; Xenophon: Selections from the Memorabilia and the Symposium. Dr. GUERNSEY. 2 points.

Tu. and Th. at 10.

Prerequisite: Advanced Entrance Greek or Courses 5, 6.

16—Plato: Phædo. Professor HIRST. 2 points.

Tu. and Th. at 10.

Prerequisite: Advanced Entrance Greek or Courses 5, 6.

29-30—Prose Composition. Second Course. Mr. DEMAREST. 4 points.

Hour to be arranged.

Prerequisite: Course 9-10.

May be taken in connection with any other course, but not separately.

[**31—Æschylus or Sophocles; Aristophanes.** 3 points.

Not given in 1914-15.]

[**32—Thucydides.** 3 points.

Not given in 1914-15.]

39-40—Prose Composition. Third Course. Dr. GUERNSEY. 4 points.

Hour to be arranged.

Prerequisite: Course 29-30.

May be taken in connection with any other course, but not separately.

41-42—Greek Literature; lectures and required reading. 8 points.

Professor VAN HOOK.

M., W., and F. at 2.

Prerequisite: Courses 11, 12 or 13, 14 or 15, 16.

Courses 31, 32 and 41-42 are given in alternate years.

See also Classical Civilization 54, a course on Greek Art, and History 73, a course on Greek and Roman Theories of Life and Conduct.

Latin

Course **A1, A2** or Course **A3-A4** is prescribed for freshmen taking the A.B. course unless they offered Advanced Latin at entrance or take Greek 5-6 in college. The section known as **A3-A4** will be restricted to 20 in number and is open only to those who have good entrance records. Prerequisite to the **A** courses: Elementary Entrance Latin.

A1—**Livy**: Selections from Books XXI-XXII; **Terence** (one play). Professors **VAN HOOK, MOORE, HIRST, and STURTEVANT**, Dr. **GUERNSEY**, and Miss **GOODALE**. 3 points.

Sections I-III, M., W., and F. at 1; Sections IV-VI, Tu., Th., and S. at 9.

During the second half-year this course will be repeated as **Latin A6** on M., W., and F. at 2, for students who enter in February.

A2—**Horace**: Selected Odes and Satires; **Catullus**. Professors **VAN HOOK, MOORE, and HIRST**, Dr. **GUERNSEY**, Mr. **MESSE** and Mr. **CRAWFORD**. 3 points.

Sections I-III, M., W., and F. at 1; Sections IV-VI, Tu., Th., and S. at 9.

A3-A4—Selections from Latin Literature, representing characteristic aspects of Roman life and thought. Mr. **MESSE**. 6 points.

M., W., and F. at 1.

9-10—**Prose Composition. First Course**. Miss **GOODALE**. 2 points. F. at 11.

Prerequisite: a grade of at least 50% in Advanced Prose Composition at entrance.

May be taken in connection with any other course, but not separately.

11—**Horace: Satires and Epistles; Tacitus: Selections**. Mr. **MESSE**. 3 points.

M., W., and F. at 9.

Prerequisite: Advanced Entrance Latin or Courses **A1, A2** or **A3-A4**.

12—**Juvenal; Martial; Pliny: Letters**. Professor **HIRST**. 3 points. M., W., and F. at 9.

Prerequisite: Advanced Entrance Latin or Courses **A1, A2** or **A3-A4**.

[15—Seneca: Prose works; Boëthius. 2 points.

Not given in 1914-15.]

[16—Tacitus: Selections from Annales, Books I-VI. 2 points.

Not given in 1914-15.]

Courses 15, 16 and 17, 18 are given in alternate years.

17—Vergil. Professor **HIRST**. 2 points.

Tu. and Th. at 1.

Prerequisite: Advanced Entrance Latin or Courses **A1, A2** or **A3-A4**.

18—Apuleius. Mr. **MESSE**. 2 points.

Tu. and Th. at 1.

Prerequisite: Advanced Entrance Latin or Courses **A1, A2** or **A3-A4**.

29-30—Prose Composition. Second Course. Professor **HIRST**. 2 points. Hour to be arranged.

Prerequisite: Course **9-10**.

May be taken in connection with any other course, but not separately.

31—Roman Philosophy: Selections from Cicero and Lucretius. Professor KNAPP. 3 points.

M., W., and F. at 2.

Prerequisite: Courses 11, 12 or 15, 16 or 17, 18.

32—Roman Drama: Selected plays of Plautus, Terence, and Seneca. Professor STURTEVANT. 3 points.

M., W., and F. at 2.

Prerequisite: Courses 11, 12 or 15, 16 or 17, 18.

39-40—Prose Composition. Third Course. Professor LOCKWOOD. 4 points.

Hour to be arranged.

Prerequisite: Course 29-30.

May be taken in connection with any other course, but not separately.

41—Latin Literature; lectures and reading. Professor KNAPP. 4 points.

Tu. and Th. at 3 and a third hour to be arranged.

Prerequisite: Courses 11, 12 or 15, 16 or 17, 18.

[42]—Latin Literature of the Empire; lectures and reading. 4 points.

Not given in 1914-15.

44—Roman Lyric Poetry: Selections from Catullus, Horace, Tibullus, and Propertius. Miss GOODALE. 3 points.

Tu. and Th. at 3 and a third hour to be arranged.

Prerequisite: Courses 11, 12 or 15, 16 or 17, 18.

See also Classical Civilization 51, a course on Roman Life and Thought, and History 73, a course on Greek and Roman Theories of Life and Conduct.

Classical Civilization

51—Roman Life and Thought. Professor KNAPP. 2 points.

Tu. and Th. at 2.

Open to all students.

[52]—Greek Life and Thought. 2 points.

Not given in 1914-15.

Courses 52 and 54 are given in alternate years.

54—Greek Art. Professor YOUNG. 2 points.

Tu. and Th. at 2.

Open to all students.

See also History 73, a course on Greek and Roman Theories of Life and Conduct.

ECONOMICS AND SOCIAL SCIENCE

Economics

A1-A2—Outlines of Economics. Professors MUSSEY and CHADDOCK, and Miss HUTCHINSON. 6 points.

Entire class Monday at 3; Section I, M. and W. at 10; Section II, Tu. and Th. at 9; Sections III and IV, Tu. and Th. at 10; Sections V and VI, Tu. and Th. at 11.

Prescribed for juniors and open to specially qualified sophomores.

11-12—Women in Industry. Miss HUTCHINSON. 6 points.

W. and F. at 10 and a third hour to be arranged.

Prerequisite: Course A1-A2.

A study of the economic relations of women.

111, 112—Problems of Public Health—Standards of Living. Professor CHADDOCK. 4 points.

Tu. and Th. at 10.

Prerequisite: Course A1-A2.

This course emphasizes the importance of the conservation of human energy and powers, especially in relation to the problems of the city community.

115 (old number 118)—History of Socialism. Professor SIMKHOVITCH.

2 points.

Tu. and Th. at 11.

Open to juniors and seniors.

116—Socialism and the Social Movement. Professor SIMKHOVITCH. 2 points.

Tu. and Th. at 11.

Open to juniors and seniors.

117—The Labor Problem. Professor SEAGER. 2 points.

Tu. and Th. at 1.

Prerequisite: Course A1-A2.

118—The Trust and Corporation Problem. Professor SEAGER. 2 points.

Tu. and Th. at 1.

Prerequisite: Course A1-A2.

Courses 101-102, Science of Finance, Professor SELIGMAN; 104, Commerce and Commercial Policy, Professor MUSSEY; 107, Fiscal and Industrial History of the United States, Professor SELIGMAN; 108, Railroad Problems: Economic, Social, and Legal, Professor SELIGMAN; 119, Economic History, Professor SIMKHOVITCH, given at Columbia University, are open, with the consent of the Department of Economics and the Committee on Instruction, to specially qualified seniors and juniors. For fuller information students are referred to the Announcement of the Division of History, Economics, and Public Law.

Sociology

Courses 151, 152, Principles of Sociology, Professors GIDDINGS and TENNEY, given at Columbia University, are open, with the consent of the instructor and the approval of the Department of Economics at Barnard College, to specially qualified seniors and juniors. For fuller information students are referred to the Announcement of the Division of History, Economics, and Public Law.

EDUCATION

Education A is prerequisite to all other courses in Education. Education B should be taken parallel with other courses in the senior year.

†A—Educational Psychology. Professor WHITLEY. 3 points.

Second half-year only, in sections as follows:

Section II, M., W., and F. at 10; Section III, Tu., Th., and S. at 10; Section IV, M., W., and F. at 9.

Prerequisite: Philosophy A1 or A4.

Students who have previously had a satisfactory course in educational psychology may substitute Course 117-118 for Course A.

†B—History and Principles of Education. Professor GOODSELL. 6 points. Section I, M., W., and F. at 3; Section II, Tu., Th., and S. at 10.

Students who have a satisfactory knowledge of the field covered by Education B may substitute Course 105-106 for Course B.

†121-122—The Psychology of Childhood. Professors NORSWORTHY and WHITLEY. 4 points.

Tu. and Th., Section I at 10, Section II at 2.

Prerequisite: Course A.

†183—Educational Hygiene. Professor WOOD. 3 points.

M., W., and F. at 2.

Courses 105-106, Philosophy of Education, Professor MACVANNEL; 107-108, Educational Sociology, Professor SUZZALO; 120C, Applications of Analytic and Genetic Psychology to Education, Professor NORSWORTHY; 187-188, Hygiene of Childhood and Adolescence, Professor WOOD, are open, by permission of Teachers College and with the approval of the Committee on Instruction of Barnard College, to specially qualified seniors. For further information students are referred to the Announcement of the School of Education of Teachers College.

ENGLISH

A1-A2—Composition. Professor BALDWIN, Miss WEEKS, Mr. HALLER, Dr. HOWARD, Miss LAPE, Miss STURTEVANT, and Miss M. W. LATHAM. 6 points.

Oral and written exposition and argument; description and narrative.

Section I, Tu., Th., and S. at 9; Sections II and IV, Tu., Th., and S. at 10; Sections V and VI, Tu., Th., and S. at 11; Sections III and VII, Tu. and Th. at 1, and S. at 11; Sections VIII and IX, M., W., and F. at 10.

Prescribed for freshmen and prerequisite for any other course.

A4, A5—Composition. Mr. HALLER. 6 points.

A4, the equivalent of A1, is prescribed for students entering college in February; and A5, the equivalent of A2, is prescribed for these students in the first term of sophomore year.

M., W., and F. at 11.

B—English Literature. The prescription of six additional points of English (12 points in all) may be met by any one of the following B courses, the particular course being determined partly by the student's choice, partly by the proficiency or aptitude shown in Course A1-A2. In special cases students are permitted to substitute for a B course one of the numbered elective courses. In general, students who as juniors or seniors elect courses in addition to the twelve points prescribed are expected, and candidates for honors are required, so to distribute their choices as to study both the earlier literature and the later. To facilitate this, the B courses are so arranged as to cover the ground of some of the numbered elective courses. Students may thus, according to their needs, make either a more general or a more detailed study of a given period, and may study it either in sophomore year or in junior or senior year. Except in special cases, no student is permitted to take both a B course and a numbered elective course in the same period.

Every election must have the written approval of the department.

Prerequisite: Course A1-A2.

B1-B2—Epic, Romance, and Drama. Selections from mediæval epic (in translation) and romance; Chaucer's *Troilus and Criseyde* and five of the *Canterbury Tales* with the prologues and interludes; Elizabethan drama; English ballads. Miss STURTEVANT. 6 points.

Section I, M., W., and F. at 1; Section II, at 9.

B3-B4—Essay and Poetry. Typical essays of the eighteenth century, the Edinburgh reviewers and their successors; Burns, Wordsworth, Byron, Shelley, Scott. Mr. HALLER and Dr. HOWARD. 6 points.

Section I, Tu., Th., and S. at 9; Section II, at 10; Section III, at 11.

B5-B6—Survey of English Literature. A rapid survey of the masterpieces of English literature since the Renaissance, especially in poetry and drama. Miss M. W. LATHAM. 6 points.

M., W., and F. at 9.

This course is designed (1) for students intending to transfer to the School of Journalism, and (2) for a limited number of students who do not intend to take any of the numbered elective courses.

B7-B8—Composition. Short themes, story-writing, essay-writing, collateral reading. Miss LAPE. 6 points.

Tu., Th. at 10, and a third hour to be arranged.

This course being substantially equivalent to Course 1, 2, students may elect either, not both. Except in special cases, B7 is prerequisite to B8.

B9-B10 (old number 3-4)—Journalistic Writing. Regular practice in writing on assignments. Dr. HOWARD. 6 points.

Tu., Th., and S. at 9.

Prescribed for sophomores intending to transfer to the School of Journalism, and equivalent to Journalism A1, A2; not open to other students.

1, 2—Composition. Professor BREWSTER. 6 points.

Tu. and Th. at 10 and a third hour to be arranged.

Prerequisite: a B course. Except in special cases, Course 1 is prerequisite to Course 2.

Daily themes (first half-year) and weekly and fortnightly themes (second half-year).

3, 4—Composition. Professor BALDWIN. 6 points.

Two consecutive hours, to be arranged, and a third appointment for criticism.

This special course for a limited number of juniors and seniors is devoted mainly to story-writing and play-writing, with collateral reading. Applications should be made two weeks before the date for handing in elections.

7-8—Elocution. Professor TASSIN. 4 points.

M., W., and F. at 1.

Prerequisite: Course A1-A2.

19-20—Survey of American Literature. Professor BAKER. 4 points.

M. and W. at 1.

Prescribed for sophomores intending to transfer to the School of Journalism, except those who are advised to substitute a language course. Prerequisite for other students, a B course.

23, 24 (old number 33, 34)—English Victorian Literature. Dr. HOWARD. 6 points.

M., W., and F. at 11.

Prerequisite: a B course. Except in special cases, Course 23 is prerequisite to Course 24.

25, 26—English Poetry from 1550 through Milton. First half-year, from 1850 to 1625; second half-year, from 1625 to 1674. Professor TRENT. 6 points.

M. and W. at 10.

Prerequisite: except in special cases, a B course.

27, 28—English Poetry from Dryden to the Victorian Period. First half-year, from Dryden to Wordsworth; second half-year, from Wordsworth to 1830. Professor TRENT. 6 points.

M. and W. at 11.

Prerequisite: except in special cases, a B course.

29-30—English Literature from the Earliest Period to the Norman Conquest. First half-year, Anglo-Saxon prose; second half-year, *Beowulf* and selected Anglo-Saxon poems. Professor KRAPP. 4 points.

M. and W. at 2.

Prerequisite: except in special cases, a B course.

31-32—English Literature from the Norman Conquest to 1550. Selections (in translation) from French and Latin mediæval literature, English Arthurian romances, *Havelok*, *Piers Plowman*, Chaucer, English ballads. Professor BALDWIN. 6 points.

Tu., Th., and S. at 9.

Prerequisite: except in special cases, a B course.

35, 36—Shakspere. Professor WRIGHT. 6 points.

M., W., and F. at 10.

Prerequisite: except in special cases, a B course.

37, 38—English Prose, including Fiction. Professor BREWSTER. 6 points.

Tu. and Th. at 2.

Prerequisite: except in special cases, a B course.

[41-42]—English Drama exclusive of Shakspere. 6 points.

Not given in 1914-15.

[45-46]—English Literary Criticism. 6 points.

Not given in 1914-15.

FINE ARTS AND ARCHITECTURE

Fine Arts

***101-102**—Ancient and Mediæval Art. Professor HAMLIN. 4 points.

Tu. and Th. at 4.

Open to qualified juniors and seniors approved by the Committee on Instruction; may not be counted towards a degree by students who have credit for Course 69-70.

Courses 101-102 and 103-104 are given in alternate years.

[*103-104—**Renaissance and Modern Art.** Professor HAMLIN. 4 points. Open to qualified juniors and seniors approved by the Committee on Instruction.

Not given in 1914-15.

Architecture

No credit will be given for a one-point course unless it is taken in connection with or as supplement to a cognate course. Students who elect only one course in Fine Arts or Architecture must therefore take the maximum work in that course.

For fuller information students are referred to the Announcement of the School of Architecture.

*31, 32—**Ancient Ornament.** Professor HAMLIN and Curator BACH. 2, or with additional reading, 4 points.

M. at 10.

Prerequisite: an entrance examination in drawing, or the submission of satisfactory free-hand drawings.

*33, 34—**Mediæval Ornament.** Professor HAMLIN. 2, or with additional reading, 4 points.

Th. at 11.

Prerequisite: an entrance examination in drawing, or the submission of satisfactory free-hand drawings.

*35, 36—**Modern Ornament.** Professor HAMLIN. 2, or with additional reading, 4 points.

Tu. at 11.

Prerequisite: an entrance examination in drawing, or the submission of satisfactory free-hand drawings.

*41, 42—**Theory and Processes of Decorative Arts.** Curator BACH. 2, or with additional reading, 4 points.

Tu. at 9.

Open to all students.

*91—**History of Painting.** Curator BACH. 1 point, or with additional reading, 2 points.

Th. at 9.

Open to all students.

*92—**The History of Sculpture.** Curator BACH. 1 point, or with additional reading, 2 points.

Th. at 9.

Open to all students.

*121, 122—**Ancient and Mediæval Architecture.** Professor HAMLIN. 4 points.

Tu. and Th. at 9.

Prerequisite: Fine Arts 101-102.

*121a—**Historic Research: Ancient and Mediæval Architecture.** Professor HAMLIN and Curator BACH. The equivalent of 4 hours' research weekly. 2 points.

Hour to be arranged.

*123, 124—Renaissance, Modern and Oriental Architecture. Professor HAMLIN. 4 points.

M. and F. at 10.

Prerequisite: Fine Arts 101-102.

*124a—Historic Research: Renaissance, Modern and Oriental. Professor HAMLIN and Curator BACH. The equivalent of 4 hours' research weekly. 2 points.

Hour to be arranged.

Prerequisite or parallel: Course 123, 124.

French. See Romance Languages and Literatures

GEOLOGY¹

1, 2—General Geology. Elementary course. The time-honored subjects of physical, structural, dynamical, stratigraphical, and historical geology are treated as parts of a single subject, from the point of view, first of processes and their results, later of the history of the earth. Professor OGILVIE, Miss RAEDER, and Miss HATCH. 2 lectures, 2 hours of laboratory work. 6 points.

Tu. and Th. at 9. Laboratory or field work, M., Tu., W., or Th., 1-3, or 2-4.

Students who have had no previous scientific training are advised to take 1a, 2a with 1, 2.

[1a, 2a—Laboratory work and a few lectures supplementary to 1, 2 and to Mineralogy 17-18. Professor OGILVIE and Miss RAEDER. 2 points.

Not given in 1914-15.]

5-6—Economic Geology. A study of the formation, distribution, uses, and of the problems of conservation of ore deposits, coal, and other mineral resources. Professor OGILVIE and Miss HATCH. 4 points.

W. and F. at 11.

Prerequisite: Course 1, 2.

17, 18—Glacial Geology and Physiography. One lecture weekly on the past glacial periods, their causes and their after-effects. Professor OGILVIE. 2 points.

Hours to be arranged.

Prerequisite or parallel: Course 1, 2.

19—Physiographic Geology. Professor OGILVIE and Miss HATCH. 1 lecture and 2 hours of laboratory work. 2 points, if taken with or subsequent to Course 1; if taken without Course 1, the laboratory work of Course 1 must be taken with Course 19 which will then count as 3 points.

M. at 10. Laboratory hours to be arranged.

If Course 19 is followed by either Course 2 or Course 20 it will constitute a full year of science.

¹ In the reckoning of points for major and minor subjects, geology and mineralogy may be counted as one subject.

[20—Historical Geology. History of the earth considered in greater detail than in Course 2. Professor OGILVIE. 2 points if taken subsequent to Course 2; 3 points, if substituted for Course 2 and taken in combination with the regular field and laboratory work in Course 2.

Not given in 1914-15.]

21, 22—Palæontology. A systematic study of the development of life. Professor OGILVIE and Miss RAEDER. 4 points.

Hours to be arranged.

23, 24—Local Geology of New York. Field work in autumn and spring; laboratory work and lectures on local topics in winter. Professor OGILVIE. 2 points.

S., field work for the whole or half day, Oct., Nov., April, and May; in other months, laboratory or lecture, S. at 10.

This course may be taken in connection with any other course in geology.

113—Summer Field Course. Professor OGILVIE. 2 weeks in the field involving the subsequent preparation of a report. 4 points.

Time to be arranged.

Prerequisite: Course 1, 2.

117, 118—Glacial Geology and Advanced Physiography. Professor OGILVIE. Lectures, reading, field and laboratory work.

Work will be arranged to suit the needs of the students and credit will be given according to the amount accomplished.

Prerequisite: Course 1, 2; prerequisite or parallel: Course 17, 18.

[123, 124—Field and laboratory work of Course 23, 24, with additional study of assigned topics. Professor OGILVIE.

Credit will be given according to the amount of work accomplished.

Hours to be arranged.

Not given in 1914-15.]

Open to advanced students only.

[125, 126—General Geology. Advanced Course. Professor OGILVIE. Lectures, reading, field and laboratory work.

Work will be arranged to suit the needs of the students and credit will be given according to the amount accomplished.

Prerequisite: Course 1, 2.

Not given in 1914-15.]

Journal Club—The advanced students and instructors in Columbia University meet one evening fortnightly for the discussion of current papers and problems. The meetings of the Journal Club are open to Barnard students taking courses in geology.

Course 116, Index Fossils of North America, Professor GRABAU; 119 and 121, Physiographic Geology, Professor JOHNSON; 151, 152, Principles of Geology, Professors GRABAU and BERKEY, are open, with the consent of the Department of Geology and the Committee on Instruction, to properly qualified juniors and seniors. For fuller information students are referred to the Announcement of the Division of Geology, Geography, and Mineralogy.

GERMANIC LANGUAGES AND LITERATURES

A1-A2—Elementary Course. Drs. HASKELL, PORTERFIELD, and BETZ. 6 points.

Section I, M., W., and F. at 10; Section II, at 11; Section III, at 2.

Prescribed for freshmen who did not present Elementary Entrance German. (See also option under New Requirements in Modern Languages, page 56.)

1-2—Intermediate Course. Reading, Grammar, and Composition. Drs. HASKELL and BETZ. 6 points.

Section I, M., W., and F. at 10; Section II, at 1.

Prerequisite to Course 1: Course A1-A2, or Elementary Entrance German.

Prerequisite to Course 2: Course 1, or Intermediate Entrance German.

3-4—Composition and Colloquial Practice. Elementary Course. Drill in German syntax and idiom. Dr. BETZ. 4 points.

Section I, Tu. and Th. at 9; Section II, at 11.

Prerequisite: Course 1-2, or Intermediate Entrance German. This course may be elected only in combination with Course 5-6, or 7, 8.

5-6—Selected Dramas of Lessing, Goethe, and Schiller. Texts and essays. Professor BRAUN, Drs. PORTERFIELD and BETZ. 6 points.

Section I, M., W., and F. at 9; Section II, at 11; Section III, at 1.

Prerequisite: Course 1-2, or, with the consent of the department, Intermediate Entrance German.

7, 8—Modern German Prose. Rapid reading of selections from the prose writings of Lessing, Goethe, Schiller, and of modern German historians, essayists, and critics. Dr. PORTERFIELD. 6 points.

M., W., and F. at 9.

Prerequisite: Course 1-2, or, with the consent of the department, Intermediate Entrance German.

9, 10—Intermediate Practice Course. Conversation and themes on German life, literature, and current events, all in German. Professor BRAUN. 4 or 6 points (see note below).

Tu. and Th. at 10, and F. at 9.

Prerequisite: Course 3-4, or 5-6, or 7, 8.

Except by special permission, Course 9, 10 may be elected *as a two-hour course* only in combination with another German course more advanced than Course 3-4. *All students specializing in German should take it as a three-hour course.*

11, 12—Colloquial Practice. Advanced Course. Informal meetings with the instructor for German conversation, and the discussion of linguistic and literary topics in German. Dr. HASKELL. 2 points for the year, if taken in connection with another advanced German elective; if taken separately, no credit.

M. and W. at 1.

A fair degree of proficiency is regarded as a prerequisite, but students must apply in person to the instructor for permission to register in this course, as the class will be limited in membership.

21, 22—Goethe. Life and Selected Works. Text, reports, and lectures. Dr. HASKELL. 6 points.

M., W., and F. at 11.

Courses **21, 22** and **23, 24** are given in alternate years.

The first term is open to qualified students who have taken Course 5-6 or 7, 8; the second term, except by special permission of the instructor, is open only to those who have passed the first term satisfactorily.

[23, 24—Schiller. Life and Selected Works.] Texts, reports, and lectures. Dr. HASKELL. 6 points.

Not given in 1914-15.]

25-26—Selected Dramas of the Nineteenth Century. Texts of representative dramatists, such as Kleist, Grillparzer, Hebbel, Ludwig, Sudermann, Hauptmann; reports and essays. Professor BRAUN. 4 points.

Tu. and Th. at 9.

Prerequisite: Course 5-6.

27-28—Romantic Fiction and Poetry. Representative selections of epic prose and lyric poetry of various Romantic writers. Reading and lectures, discussions and reports. Dr. PORTERFIELD. 6 points.

M., W., and F. at 10.

Prerequisite: Course 5-6.

37, 38—History of German Literature from the earliest times to the nineteenth century. Lectures, themes, and readings from Thomas's *Anthology of German Literature* and other texts. Professor THOMAS. 4 points.

Tu. and Th. at 10.

The first term is open to juniors and seniors who have taken Course 5-6 or 7, 8; the second term, except by special permission of the instructor, is open only to those who have passed the first term satisfactorily.

39, 40—Goethe's Faust; First and Second Parts. Lectures and recitations. Professor BRAUN. 4 points.

M. and W. at 9.

The first term is open to juniors and seniors who have taken Course 5-6 or 7, 8; the second term, except by special permission of the instructor, is open only to those who have passed the first term satisfactorily.

¹Courses 105, German Literature from 1796 to 1871, Professor THOMAS; 106, Contemporary German Literature, Professor TOMBO; 107, History of the German Language, Professor REMY; 108, The German of To-day, 109, Kleist's Life and Works, Professor HEUSER; 113-114, Middle High German Literature, Professor HERVEY; 129-130, History of German Civilization, Dr. RICHARD, given at Columbia University, are open, with the consent of the Department of German and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Modern Languages and Literatures.

Greek. See Classical Philology

HISTORY

A1-A2—Epochs of European History, with special reference to forms of government and changes in social conditions. Professor MUZZEY and Miss HUTTMANN. 6 points.

Sections I and II, Tu., Th., and S. at 9; Sections III and IV, Tu., Th.,

and S. at 10; Section V, Tu. and Th. at 1 and W. at 2. (Each section is limited to 35 students.)

Prescribed for sophomores and for *freshmen intending to transfer to the School of Journalism*. Open to other freshmen only with the consent of the Department of History. This course is prerequisite to all the courses enumerated below.

Students who pass the entrance examination in mediæval and modern history may, with the permission of the Department of History, substitute for History A1-A2, as the prescribed work, one of the courses in history numbered less than 100, provided that the total number of points of credit attached to the course be not less than six.

3-4—Greece and Early Italy. Professor BOSTFORD. 6 points.

M., W., and F. at 9.

Courses 3-4 and 5-6 are given in alternate years.

[5-6—The Roman Empire. Professor BOSTFORD. 6 points.

Not given in 1914-15.]

9, 10—Modern European History with special reference to the development of France. Professor MUZZEY. 4 points.

Tu. and Th. at 1.

Prescribed for *sophomores intending to transfer to the School of Journalism*.

11, 12—English History, with special reference to the history of Continental Europe. Professor MUZZEY. 6 points.

Tu. at 2, and Th. 2-4.

13-14—History of the United States. Professor SHEPHERD. 6 points.

M., W., and F. at 11.

19, 20—Contemporary European History, based largely upon current news. Professor SHOTWELL and Miss HOFFMAN. 4 points.

M. and W., at 2.

Prerequisite: Course A1-A2.

Prescribed for *sophomores intending to transfer to the School of Journalism*.

55, 56—European Social History. Professor SHOTWELL and Miss HOFFMAN. 6 points.

M., W., and F. at 3.

Open to seniors and to specially qualified juniors.

73—Greek and Roman Theories of Life and Conduct. Mrs. PUTNAM. 2 points.

Tu. and Th. at 11.

Open to juniors and seniors. This course is specially recommended to students taking Course 121.

121-122—The History of the Intellectual Class in Europe. Professor ROBINSON and Miss HUTTMANN. 8 points.

Tu. and Th., 2-4.

Open only to seniors and to specially qualified juniors.

Courses 117, History of Greece to the End of the War with Persia, Professor BOSTFORD; 169-170, The Expansion of Europe, Professor SHEPHERD, given at Columbia University, are open, with the consent of the Department of History and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of History, Economics, and Public Law.

Hygiene. See Education and Physical Education

Italian. See Romance Languages and Literatures

Latin. See Classical Philology

MATHEMATICS

A1, A2—Trigonometry, Algebra, and Geometry. Trigonometry, including the use of tables, the solution of triangles, and the important analytical formulæ; algebra, including permutations and combinations, determinants and logarithms; solid geometry. Dr. CURTIS, Dr. FISCHER, and Mr. MULLINS. 6 points.

Sections I and II, M., W., and F. at 9; Sections III and IV, M., W., and F. at 10; Section V, M., W., and F. at 11; Section VI, M., W., and F. at 2; Sections VII and VIII, Tu., Th., and S. at 9.

Mathematics **A1, A2** (except such parts—trigonometry, algebra, or solid geometry—as were passed for entrance) is prescribed for all freshmen.

During the second half-year, the work of the first term will be repeated as Mathematics **A4**, on Tu., Th., and S. at 10, for students who enter in February.

21—Analytical Geometry. Introduction to the analytical geometry of the plane and of space. Professor KASNER. 3 points.

M., W., and F. at 11.

Prerequisite: Course **A1, A2**, or Advanced Entrance Mathematics.

22—Calculus. Elementary course in the differential and integral calculus. Professor KASNER. 3 points.

M., W., and F. at 11.

Prerequisite: Course **21**.

23-24—Theory of Equations. Algebraic and numerical solution of equations, determinants, complex numbers. Dr. CURTIS. 6 points.

M., W., and F. at 2.

Prerequisite: Course **A1, A2**.

25-26—Calculus. Differential and integral calculus. Professor COLE. 6 points.

M., W., and F. at 11.

Prerequisite: Course **22**.

27-28—Projective Geometry. Projective methods of pure geometry. Mr. MULLINS. 6 points.

M., W., and F. at 1.

Prerequisite: Course **21**.

[**32**—Advanced Analytical Geometry. Modern methods in analytical geometry; solid analytical geometry. Dr. CURTIS. 3 points.

Prerequisite: Course **25-26**.

Not given in 1914-15.]

33-34—The Fundamental Concepts of Modern Mathematics. Lectures, discussions, and reports. Professor KASNER. 6 points.

M., W., and F. at 10.

Prerequisite or parallel: Course **25-26**.

[35—General Introduction to Higher Mathematics. Professor KASNER.
3 points.

Prerequisite or parallel: Course 25-26.

Not given in 1914-15.]

MINERALOGY¹

17-18—General Mineralogy. Professor OGILVIE and assistant. 1 lecture and 2 or 4 hours of laboratory work. 4 or 6 points.

Lecture Tu. at 2. Laboratory hours to be arranged.

Prerequisite: some knowledge of chemistry.

Laboratory fee, \$3.

MUSIC

*1-2—General Musical Course. History of Music from Palestrina to the death of Beethoven, with illustrations. Professor MASON. 4 points.

Tu. and Th. at 2.

This course requires no previous knowledge of music.

*3-4—General Musical Course, Advanced. Discussion of modern music. Professor MASON. 4 points.

Tu. and Th. at 11.

Prerequisite: Course 1-2. Students who have not taken Course 1-2 will be admitted, but will be required to take a special examination during the first few weeks showing a general knowledge of the chief contributions to music of the classic masters—Bach, Haydn, Mozart, Beethoven. Such a knowledge may be obtained by reading Surette and Mason's *The Appreciation of Music*.

*7-8—Harmony. Mr. WARD. 6 points.

M., W., and F. at 11.

Prerequisite: a knowledge of musical notation.

*9-10—Advanced Harmony and Elementary Form. Professor MASON. 4 points.

M. and W. at 2.

Prerequisite: Course 7-8.

*11-12—Counterpoint. Professor MASON. 4 points.

M. and W. at 3.

Prerequisite: Course 7-8.

*13-14—Composition and Orchestration. Professor RUBNER. 4 points.

Th. 10-12.

Prerequisite: Course 9-10.

Courses 101-102, Advanced Composition and Orchestration, and 103-104, Orchestration and Symphonic Form, Professor RUBNER, given at Columbia University, are open, with the consent of the Department of Music and the Committee on Instruction, to properly qualified seniors.

For fuller information regarding the various courses in music, students are referred to the appropriate University Announcement.

¹ In the reckoning of points for major or minor subjects, mineralogy and geology may be counted as one subject.

PHILOSOPHY AND PSYCHOLOGY

Philosophy

A₁, A₂—Introductory Course. Psychology and Logic. Professors MONTAGUE, HOLLINGWORTH, and Dr. BROWN. 6 points.

Philosophy **A₁** and **A₄** are identical psychology courses. Philosophy **A₂** and **A₃** are identical logic courses. Two half-year courses, one psychology (**A₁** or **A₄**) and the other logic (**A₂** or **A₃**) are prescribed for sophomores and may be taken in any combination desired. Specially qualified seniors and juniors may, with the consent of the Department of Philosophy, substitute Course **61-62** for Course **A₁, A₂**.

A₁, A₂, Section I, M., W., and F. at 9; Section II, at 11; Section III, Tu., Th., and S. at 10. **A₃, A₄**, Section IV, M., W., and F. at 10; Section V, at 11.

21-22—Ethics. Professor LORD. 8 points.

M., W., and F. at 1.

Prerequisite: Course **A₁, A₂**.

42—Esthetics. Dr. BROWN. 3 points.

Tu. and Th. at 9.

Prerequisite: Course **A₁, A₂**.

An analysis of artistic activity and a study of the principles which underlie criticism and limit forms of expression whether in literature, science, or the arts.

61-62—The History of Philosophy. Professor MONTAGUE. 8 points.

M., W., and F. at 9.

Prerequisite: Course **A₁, A₂**, except in special cases, where, with the consent of the Department of Philosophy, Course **61-62** is substituted for Course **A₁, A₂**.

79—Contemporary Philosophy. Dr. BROWN. 3 points.

Tu. and Th. at 9.

Prerequisite: Course **A₁, A₂**.

Courses **104**, Analysis of Experience, Professor DEWEY; **123-124**, History of Ethics, Dr. COOLEY; **126**, Critique of Modern Philosophical Systems, Professor ADLER; **131A-132A**, Moral and Political Philosophy, Professor DEWEY, given at Columbia University, are open, with the consent of the Department of Philosophy and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Philosophy, Psychology, and Anthropology.

Psychology

For the elementary course in Psychology, which is prerequisite to all other courses in this subject, see Philosophy **A₁** or **A₄**.

7-8—Experimental Psychology, Introductory Course. Professor HOLLINGWORTH. 2 lectures and 3 hours of laboratory work. 6 points.

M. and W. at 10; laboratory work F. at 10, and M. or W., 1-3.

9-10—Experimental Psychology, Intermediate Course. Professor HOLLINGWORTH. 1 hour conference and 4 hours of laboratory work. 6 points.

Conference M. at 9; laboratory work M., W., and F. afternoons.

Prerequisite: Course **7-8** or its equivalent.

11—Abnormal and Applied Psychology. Professor HOLLINGWORTH 2 lectures, reading, reports, and visits to clinics and institutions. 3 points. W. and F. at 9; other hours to be arranged.

Prerequisite: Course 7-8 or its equivalent.

12—Analytic Psychology. Professor HOLLINGWORTH. Lectures, reading, and discussion. 3 points.

W. and F. at 9.

Prerequisite: Course 7-8 or its equivalent.

Courses at Columbia University numbered over 100 in analytic, experimental, physiological, and genetic psychology are open to specially qualified seniors with the consent of the Department and of the Committee on Instruction. For details of these courses see the Announcement of the Division of Philosophy, Psychology, and Anthropology.

PHYSICAL EDUCATION

†A1, A2—Lectures on Personal Hygiene, Elementary Dancing, Games, and Athletics. Miss BEEGLE. 2 points.

Lecture (first half-year only) Section I, Tu. at 1; Section II, at 2; and gymnasium work in sections as follows:

Section I (elementary dancing), M. and W. at 3.

Section II (advanced dancing), Tu. and Th. at 11.

Section III (general athletics and swimming), Tu. and Th. at 3.

Gymnasium fee, \$7.

Prescribed for freshmen unless Course D1, D2 is substituted by advice of the Director of Physical Education.

†B1, B2—Lectures on Physiology and Eugenics, Athletics, Games, and Dancing. Miss BEEGLE. 2 points.

Lecture hours to be arranged, and gymnasium work in sections as follows:

Section I (dancing), Tu. and Th. at 10.

Section II (dancing), Tu. and Th. at 11.

Section III (general athletics), M. or W. at 4. (and swimming), M. or W. at 3.30.

Gymnasium fee, \$7.

Prescribed for sophomores unless excused by the Director of Physical Education. Such sophomores as have completed Course D1, D2 must confer with the Director of Physical Education for advice as to a substitute for Course B1, B2.

†C1, C2—Advanced Folk and Interpretative Dancing. Miss BEEGLE. 2 hours.

Tu. and Th. at 2.

Gymnasium fee, \$7.

Open to juniors and seniors. This course cannot be counted for a degree.

D1, D2—Hygiene, Physiology, and Public Health Problems. Miss BEEGLE. 2 points.

Tu. at 2.

Prescribed as an alternative for freshmen who have been excused from Course A1, A2 by the Director of Physical Education.

See also Education 183, a course in Educational Hygiene.

NOTE—Indoor basket-ball, hockey, and base-ball practice in the gym-

nasium on M. at 5; Tu. at 4; and S. at 12. All students substituting athletics for Course A or B are required to register for one period of gymnasium work and two periods of practice.

An annual gymnasium fee of \$7 is required of every student in Barnard College. This entitles the student to a locker and the use of the gymnasium, swimming-pool, hand-ball courts, and bowling alleys at scheduled hours.

The prescribed gymnasium and field costume consists of dark blue bloomers, white sailor blouses, and ties of class color. Detailed information concerning the costume will be posted on the bulletin of the Physical Education office, Room 116, Barnard College.

For detailed description of other courses in Hygiene and Physical Education, offered by the Faculty of Teachers College and open to Barnard College students, see the Announcement of the School of Education of Teachers College or of the Division of Physical Education.

PHYSICS

1-2—Elementary Course in General Physics. Professor MALTBY and Miss BRANT. 5 hours, lectures, discussions, and laboratory work. 6 points.

M., W., and F. at 11.

This course is intended for students who have no previous knowledge of physics.

11-12—General Physics. Miss LANGFORD and Miss BRANT. 5 hours, lectures, discussions, and laboratory work. 6 points.

Tu. and Th. at 11, and a third hour to be arranged.

Prerequisite: Entrance Physics.

31—Mechanics. Miss LANGFORD. 3 hours, lectures and discussions, and 2 or 4 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Prerequisite: Course 1-2 or 11-12, except by special arrangement.

32—Heat and the Properties of Matter. Miss LANGFORD. 3 hours, lectures and discussions, and 2 or 4 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Prerequisite: Course 31, except by special arrangement.

33—Sound. Professor MALTBY. 3 hours, lectures and discussions, and 2 or 4 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Prerequisite: Course 1-2 or 11-12.

34—Light. Miss LANGFORD. 3 hours, lectures and discussions, and 2 or 4 hours of laboratory work. 4 or 5 points.

Hours to be arranged.

Prerequisite: Course 1-2 or 11-12.

35—Electricity and Magnetism. Miss LANGFORD. 4 or 5 points.
Hours to be arranged.

Prerequisite: Courses 31 and 32.

36—Electricity. Miss LANGFORD. 4 points.
Hours to be arranged.

Prerequisite: Course 35.

138—Theory of Electricity. Professor MALTBY. 3 points.
Hours to be arranged.
Prerequisite: Courses 35, 36.

POLITICS

1-2—American Government. First term: federal government; second term: state and municipal government. Professor BEARD and Mr. MAC-MAHON. 6 points.

M., W., and F. at 2.

Prescribed for freshmen intending to transfer to the School of Journalism.
Open to other students who have had History A.

Psychology. See *Philosophy and Psychology*

ROMANCE LANGUAGES AND LITERATURES

French

A1, A2—Elementary Course. Professor MULLER and Mr. FORTIER. 6 points.

Section I, M., W., and F. at 9; Section II, at 10.

Prescribed for students who did not present French at entrance. See also option under New Requirements in Modern Languages, page 56.)

1, 2 (old number **B1, B2**)—**Reading, Composition, Syntax.** Professor MULLER, Dr. ALEXANDER, and Mr. IMBERT. 6 points.

Sections I and II, M., W., and F. at 11, Section III, at 2.

Prerequisite to Course 1; Course A1, A2, or Elementary Entrance French.

Prerequisite to Course 2: Course 1, or Intermediate Entrance French.

3, 4 (old number **1, 2**)—**General Introduction to the Study of French Literature.** Reading, composition, and lectures. Professors GERIG, MULLER, and Dr. ALEXANDER. 6 points.

Section I (for students who passed the examination in Intermediate Entrance French and who intend to continue the subject), M., W., and F. at 10; Section II, M., W., and F. at 10; Section III, at 9.

Prerequisite: Course 1, 2 or its equivalent.

5, 6—History of French Literature in the Seventeenth Century. Professor WEEKS. 6 points.

M., W., and F. at 11.

Prerequisite: grade C in Course 3, 4.

7, 8 (old number 3, 4)—**Modern French Writers.** Practical course, conducted entirely in French. Professor JORDAN. 6 points.

M., W., and F. at 1.

Prerequisite: Course 3, 4, or the equivalent of Course 2, with special training in the practical use of the language.

9, 10—Advanced French Composition. Class work entirely in French. Professor JORDAN. 4 points.

Tu. and Th. at 11.

Prerequisite: Course 2.

17, 18—History of the French Drama. Professor WEEKS. 6 points.

M., W., and F. at 2.

Prerequisite: Course 5, 6.

Courses 103, 104, History of French Literature in the Eighteenth Century, Professor LOISEAUX; 105, 106, History of French Literature in the Nineteenth Century, Professor WEEKS; 111, 112, French Literature in the Sixteenth Century, Professor GERIG; 113, 114, Old French, Professor TODD, given at Columbia University, are open, with the consent of the Department of Romance Languages and Literatures and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Modern Languages and Literatures.

Italian

1, 2—General Introduction to the Italian Language and Literature. Grammar and easy Italian texts. Professors LIVINGSTON and BIGONGIARI. 6 points.

M., W., and F. at 1.

3, 4—Dante's Inferno, Petrarch's Canzoniere, Carducci. Italian Composition. Professors LIVINGSTON and BIGONGIARI. 6 points.

M., W., and F. at 2.

Course 131, 132—Typical Movements in Italian Literature, Professors LIVINGSTON, and BIGONGIARI, given at Columbia University, is open, with the consent of the Department of Romance Languages and Literatures and the Committee on Instruction, to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Modern Languages and Literature.

Spanish

1, 2—Elementary Course. Grammar, reading, composition. Professor LOISEAUX. 6 points.

M., W., and F. at 11.

This course may not be taken at the same time with Italian 1, 2.

3, 4—General Introduction to Spanish Literature. Grammar, reading, composition. Mr. IMBERT. 6 points.

M., W., and F. at 10.

Prerequisite: Course 1, 2.

Courses 143, 144, the Spanish Comedia, given at Columbia University, are open with the consent of the Department of Romance Languages and Literatures and the Committee on Instruction to properly qualified seniors. For fuller information students are referred to the Announcement of the Division of Modern Languages and Literatures.

Romance Philology

Courses 151, 152, Introduction to Romance Philology, Phonology (first half-year) Morphology (second half-year), Professor TODD, are open under the same conditions to properly qualified seniors.

Sociology. See **Economics and Social Science**

Spanish. See **Romance Languages**

ZOOLOGY

1-2—General Biology and General Zoölogy. Elementary course. Professors CRAMPTON and OSBURN, Miss DEDERER, Dr. GREGORY, and Mrs. LOWTHER. 2 lectures and 4 hours of laboratory work. 8 points.

Tu. and Th. at 1. Laboratory work, Tu. and Th., 2-4, or W. and F. I-4.

Laboratory fee, \$5.00.

Open to sophomores, juniors, and seniors.

This course is especially designed for students of physiology, geology, and medicine, as well as for those who intend to pursue zoölogy and botany.

3—Histology. Miss DEDERER. 1 lecture and 2 hours of laboratory work. 2 points.

W. at 9; laboratory work, W., 10-12 preferably.

Laboratory fee, \$2.50, unless taken with Course 1.

Prerequisite or parallel: Course 1. Recommended as a parallel to Course 1.

4—Embryology. Professor OSBURN. 1 lecture and 2 hours of laboratory work. 2 points.

W. at 9; laboratory work, W., 10-12 preferably.

Laboratory fee, \$2.50, unless taken with Course 2 or Course 102.

Prerequisite or parallel: Course 1-2. Recommended as a parallel to Course 2.

5—General Principles of Biology. A general discussion of the fundamental facts of variation, inheritance, evolution, geographical distribution, animal coloration, and related topics. Professor CRAMPTON. 2 points.

Prerequisite: Course 1-2.

This course supplements the general discussion given in Courses 1-2 and 101-102, and gives opportunity for a more critical and extended treatment of general principles.

Not given in 1914-15.]

[6—Experimental Biology. An introduction to the experimental study of growth, reaction to stimuli, development, inheritance, and related topics. Professor CRAMPTON. 2 points.

Prerequisite: Course 1-2.

This course gives opportunity to undergraduates to become familiar with some of the methods and results of experimental research, and forms a desirable preparation for graduate work in experimental subjects.

Not given in 1914-15.]

7-8—Biology and Vital Relations of the Human Organism. General anatomy and physiology of the human type in comparison with other organisms; the biological basis of individual hygiene; human genetics; social relations of human beings in the light of biology. Professors CRAMPTON and OSBURN and Dr. GREGORY. 4 points; or 2 points, if taken parallel with or subsequent to Course 1-2.

W. and F. at 2.

Open to students of all classes.

This course does not count as fulfilling the prescribed requirement in science for the A.B. or B.S. degree.

53-54—Practical Zoölogy and Embryology. Miss DEDERER. 4 hours of conference and laboratory work. 4 points.

Hours to be arranged.

Laboratory fee, \$5.00.

Prerequisite: Course 1-2.

This course is designed for students of zoölogy desiring practice in the preparation and mounting of zoölogical, histological, and embryological materials for microscopic examination.

101-102—General Zoölogy. Advanced course. Professors CRAMPTON and OSBURN, Miss DEDERER, and Dr. GREGORY. 3 lectures and 6 hours of laboratory work. 12 points.

M., W., and F., 9-12.

Laboratory fee, \$5.00.

Prerequisite: Courses 1-2, and 4.

This course is designed for students intending to enter medicine, also for students of zoölogy and botany as graduate subjects.

151-152—General Physiology. General principles of animal physiology. Professor OSBURN and Dr. GREGORY. 2 lectures and 4 hours of demonstration and laboratory work. 8 points.

Tu. and Th., 9-12.

Laboratory fee, \$5.00.

Open to juniors and seniors.

This course is designed for students of zoölogy, botany, and psychology, as well as for students intending to study medicine, and may be taken together with, or subsequent to Course 1-2.

SCHEME OF

| HOURS | MONDAY | TUESDAY | WEDNESDAY |
|-------|---|--|--|
| 9 | A.M. Botany 51-52 †Education A (IV) English B1-B2 (II) English B5-B6 French A1, A2 (I) French 3, 4 (III) German 5-6 (I) German 7, 8 German 39, 40 History 3-4 Latin 11, 12 Mathematics A1, A2 (I, II) Philosophy A1, A2 (I) Philosophy 61-62 Psychology 9-10 Zoölogy 101-102 | *Architecture 41, 42 *Architecture 121, 122 Chemistry 41-42 Economics A1-A2 (II) English A1-A2 (I) English B3-B4 (I) English B9-B10 English 31-32 Geology 1, 2 German 3-4 (I) German 25-26 History A1-A2 (I, II) Latin A1, A2 (IV, V, VI) Mathematics A1, A2 (VII, VIII) Philosophy 42 Philosophy 79 Zoölogy 151-152 | Botany 51-52 †Education A (IV) English B1-B2 (II) English B5-B6 French A1, A2 (I) French 3, 4 (III) German 5-6 (I) German 7, 8 German 39, 40 History 3-4 Latin 11, 12 Mathematics A1, A2 (I, II) Philosophy A1, A2 (I) Philosophy 61-62 Psychology 11, 12 Zoölogy 3, 4 Zoölogy 101-102 |
| 10 | A.M. *Architecture 31, 32 *Architecture 123, 124 Economics A1-A2 (I) †Education A (II) English A1-A2 (VIII, IX) English 25, 26 English 35, 36 French A1, A2 (II) French 3, 4 (I, II) Geology 19 German A1-A2 (I) German 1-2 (I) German 27-28 Mathematics A1, A2 (III, IV) Mathematics 33-34 Philosophy A3, A4 (IV) Psychology 7-8 Spanish 3, 4 Zoölogy 101-102 | Botany 53-54 Chemistry 63, 64 Economics A1-A2 (III, IV) Economics 111, 112 †Education A (III) †Education B (II) †Education 121-122 (I) English A1-A2 (II, IV) English B3-B4 (II) English B7-B8 English 1, 2 German 9, 10 German 37, 38 Greek 15, 16 History A1-A2 (III, IV) Mathematics A4 Philosophy A1, A2 (III) Physical Education B1, B2 (I) Zoölogy 151-152 | Economics A1-A2 (I) Economics 11-12 †Education A (II) English A1-A2 (VIII, IX) English 25, 26 English 35, 36 French A1, A2 (II) French 3, 4 (I, II) German A1-A2 (I) German 1-2 (I) German 27-28 Mathematics A1, A2 (III, IV) Mathematics 33, 34 Philosophy A3, A4 (IV) Psychology 7-8 Spanish 3, 4 Zoölogy 101-102 |
| 11 | A.M. Chemistry 5-6 English A4, A5 English 23, 24 English 27, 28 French 1, 2 (I, II) French 5, 6 German A1-A2 (II) German 5-6 (II) German 21, 22 Greek 11, 12 History 13-14 Mathematics A1, A2 (V) Mathematics 21, 22 Mathematics 25-26 *Music 7-8 Philosophy A1, A2 (II) Philosophy A3, A4 (V) Physics 1-2 Spanish 1, 2 Zoölogy 101-102 | *Architecture 35, 36 Botany 153, 156 Economics A1-A2 (V, VI) Economics 115, 116 English A1-A2 (V, VI) English B3-B4 (III) French 9, 10 German 3-4 (II) Greek 9-10 History 73 *Music 3-4 Physical Education A1, A2 (II) Physical Education B1, B2 (II) Physics 11-12 Zoölogy 151-152 | Chemistry 5-6 English A4, A5 English 23, 24 English 27, 28 French 1, 2 (I, II) French 5, 6 Geology 5-6 German A1-A2 (II) German 5-6 (II) German 21, 22 Greek 11, 12 History 13-14 Mathematics A1, A2 (V) Mathematics 21, 22 Mathematics 25-26 *Music 7-8 Philosophy A1, A2 (II) Philosophy A3, A4 (V) Physics 1-2 Spanish 1, 2 Zoölogy 101-102 |

Courses marked with an asterisk [*] are given at Columbia University:

ATTENDANCE

| THURSDAY | FRIDAY | SATURDAY |
|---|--|--|
| <p>*Architecture 91, 92 *Architecture 121, 122 Chemistry 41-42 Economics A1-A2 (II) English A1-A2 (I) English B3-B4 (I) English B9-B10 English 31-32 Geology 1, 2 German 3-4 (I) German 25-26 History A1-A2 (I, II) Latin A1, A2 (IV, V, VI) Mathematics A1, A2 (VII, VIII) Philosophy 42 Philosophy 79 Zoölogy 151-152</p> <p>Botany 53-54 Chemistry 63, 64 Economics A1-A2 (III, IV) Economics 111, 112 †Education A (III) †Education B (II) †Education 121-122 (I) English A1-A2 (II, IV) English B3-B4 (II) English B7-B8 English 1, 2 German 9, 10 German 37, 38 Greek 15, 16 History A1-A2 (III, IV) Mathematics A4 *Music 13-14 Philosophy A1, A2 (III) Physical Education B1, B2 (I) Zoölogy 151-152</p> | <p>Botany 51-52 †Education A (IV) English B1-B2 (II) English B5-B6 French A 1, A2 (I) French 3, 4 (III) German 5-6 (I) German 7, 8 German 9, 10 History 3-4 Latin 11, 12 Mathematics A1, A2 (I, II) Philosophy A1, A2 (I) Philosophy 61-62 Psychology 11, 12 Zoölogy 101-102</p> <p>*Architecture 123, 124 Economics 11-12 †Education A (II) English A1-A2 (VIII, IX) English 35, 36 French A1, A2 (II) French 3, 4 (I, II) German A1-A2 (I) German 1-2 (I) German 27-28 Mathematics A1, A2 (III, IV) Mathematics 33-34 Philosophy A3, A4 (IV) Psychology 7-8 Spanish 3, 4 Zoölogy 101-102</p> | <p>English A1-A2 (I) English B3-B4 (I) English B9-B10 English 31-32 History A1-A2 (I, II) Latin A1, A2 (IV, V, VI) Mathematics A1, A2 (VII, VIII)</p> <p>†Education A (III) †Education B (II) English A1-A2 (II, IV) English B3-B4 (II) Geology 23, 24 History A1-A2 (III, IV) Mathematics A4 Philosophy A1, A2 (III)</p> <p>Chemistry 5-6 English A4, A5 English 23, 24 French 1, 2 (I, II) French 5, 6 Geology 5-6 German A1-A2 (II) German 5-6 (II) German 21, 22 Greek 11, 12 History 13-14 Latin 9-10 Mathematics A1, A2 (V) Mathematics 21, 22 Mathematics 25-26</p> <p>*Music 7-8 Philosophy A1, A2 (II) Philosophy A3, A4 (V) Physics 1-2 Spanish 1, 2 Zoölogy 101-102</p> |
| <p>*Architecture 33, 34 Botany 153, 156 Economics A1-A2 (V, VI) Economics 115, 116 English A1-A2 (V, VI) English B3-B4 (III) French 9, 10 German 3-4 (II) History 73 *Music 3-4 *Music 13-14 Physical Education A1, A2 (II) Physical Education B1, B2 (II) Physics 11-12 Zoölogy 151-152</p> | <p>Chemistry 5-6 English A4, A5 English 23, 24 French 1, 2 (I, II) French 5, 6 Geology 5-6 German A1-A2 (II) German 5-6 (II) German 21, 22 Greek 11, 12 History 13-14 Latin 9-10 Mathematics A1, A2 (V) Mathematics 21, 22 Mathematics 25-26</p> <p>*Music 7-8 Philosophy A1, A2 (II) Philosophy A3, A4 (V) Physics 1-2 Spanish 1, 2 Zoölogy 101-102</p> | <p>English A1-A2, (V, VI) English A1-A2 (III, VII) English B3-B4 (III)</p> |

those marked with a dagger [†] are given at Teachers College.

SCHEME OF

| HOURS | MONDAY | TUESDAY | WEDNESDAY |
|--------------|---|--|---|
| P.M. 1.10 | Anthropology 1, 2 Chemistry 105-106 English B1-B2 (I) English 7-8 English 19-20 French 7, 8 German 1-2 (II) German 5-6 (III) German II, 12 Greek 5, 6 Introductory Science 1-2 Italian 1, 2 Latin A1, A2 (I, II, III) Latin A3-A4 Mathematics 27-28 Philosophy 21-22 | Astronomy 1-2 Economics 117, 118 English A1-A2 (III, VII) History A1-A2 (V) History 9, 10 Latin 17, 18 Physical Education A1 (I) (Lecture) Zoölogy 1-2 | Anthropology 1, 2 Chemistry 105-106 English B1-B2 (I) English 7-8 English 19-20 French 7, 8 German 1-2 (II) German 5-6 (III) German II, 12 Greek 5, 6 Introductory Science 1-2 Italian 1, 2 Latin A1, A2 (I, II, III) Latin A3-A4 Mathematics 27-28 Philosophy 21-22 |
| 2.10 | †Education 183 English 29-30 French 1, 2 (III) French 17, 18 German A1-A2 (III) Greek 1-2 Greek 41-42 History 19, 20 Italian 3, 4 Latin A6 Latin 31, 32 Mathematics A1, A2 (VI) Mathematics 23-24 *Music 9-10 Politics 1-2 | Classical Civilization 51, 54 †Education 121-122 (II) English 37, 38 History 11, 12 History 121-122 Mineralogy 17-18 *Music 1-2 Physical Education A1 (II) (Lecture) Physical Education C1, C2 Physical Education D1, D2 | †Education 183 English 29-30 French 1, 2 (III) French 17, 18 German A1-A2 (III) Greek 1-2 Greek 41-42 History A1-A2 (V) History 19, 20 Italian 3, 4 Latin A6 Latin 31, 32 Mathematics A1, A2 (VI) Mathematics 23-24 *Music 9-10 Politics 1-2 Zoölogy 7-8 |
| 3.10 | Economics A1-A2 (I-VI) †Education B (I) History 55, 56 *Music 11-12 Physical Education A1, A2 (I) Physical Education B1, B2 (III) (3.30) | History 121-122 Latin 41, 44 Physical Education A1, A2 (III) | †Education B (I) History 55, 56 *Music 11-12 Physical Education A1, A2 (I) Physical Education B1, B2 (III) (3.30) |
| 4.10 | Physical Education B1, B2 (III) | *Fine Arts 101-102 | Physical Education B1, B2 (III) |

Courses marked with an asterisk [*] are given at Columbia University;

ATTENDANCE

| THURSDAY | FRIDAY | SATURDAY |
|--|---|----------|
| Astronomy 1-2 Economics 117, 118 English A1-A2 (III, VII) History A1-A2 (V) History 9, 10 Latin 17, 18 Zoölogy 1-2 | Anthropology 1, 2 Chemistry 105-106 English B1-B2 (I) English 7-8 French 7, 8 German 1-2 (II) German 5-6 (III) Greek 5, 6 Introductory Science 1-2 Italian 1, 2 Latin A1, A2 (I, II, III) Latin A3-A4 Mathematics 27-28 Philosophy 21-22 | |
| Classical Civilization 51, 54 [†] Education 121-122 (II) English 37, 38 History 11, 12 History 121-122 [*] Music 1-2 Physical Education C1, C2 | [†] Education 183 French 1, 2 (III) French 17, 18 German A1-A2 (III) Greek 1-2 Greek 41-42 Italian 3, 4 Latin A6 Latin 31, 32 Mathematics A1, A2 (VI) Mathematics 23-24 Politics 1-2 Zoölogy 7-8 | |
| History 11, 12 History 121-122 Latin 41, 44 Physical Education A1, A2 (III) | [†] Education B (I) History 55, 56 | |
| [*] Fine Arts 101-102 | | |

those marked with a dagger [†] are given at Teachers College.

ACADEMIC CALENDAR

1914-1915

1914—Sept. 7—Monday, Last day for filing applications for entrance and delinquent examinations in September.
Sept. 14—Monday, Entrance examinations and examinations for deficient students begin.
Sept. 16—Wednesday, Registration begins.
Sept. 22—Tuesday, Registration ceases for students previously matriculated. Later applications received only upon payment of an additional fee of \$5.
Sept. 23—Wednesday, First half-year, 26th year, begins.
Registration ceases for students matriculating for the first time. Later applications received only upon payment of an additional fee of \$5.
Oct. 20—Tuesday, Stated meeting of University Council.
Nov. 3—Tuesday, Election Day, holiday.
Nov. 25—Wednesday, University service in St. Paul's Chapel.
Nov. 26—Thursday,
 to
Nov. 28—Saturday, inclusive, Thanksgiving holidays.
Dec. 6—Sunday, Commemoration service in St. Paul's Chapel.
Dec. 15—Tuesday, Stated meeting of University Council.
Dec. 21—Monday,
 to
1915—Jan. 2—Saturday, inclusive, Christmas holidays.
Jan. 7—Thursday, Last day for filing applications for January entrance examinations.
Jan. 14—Thursday, January entrance examinations begin.
Jan. 20—Wednesday, Mid-year examinations begin.
Feb. 1—Monday, Registration begins.
Feb. 2—Tuesday, First half-year ends.
Feb. 3—Wednesday, Second half-year begins.
 University service in St. Paul's Chapel.
 Registration ceases for students entering the second half-year. Later applications received only upon payment of an additional fee of \$5.
Feb. 16—Tuesday, Stated meeting of University Council.
Feb. 22—Monday, Washington's Birthday, holiday.
April 1—Thursday, Last day for filing applications for non-competitive scholarships.

April 1—Thursday,
to
April 5—Monday, inclusive, Easter holidays.
April 20—Tuesday, Stated meeting of University Council.
May 17—Monday, Final examinations begin.
May 30—Sunday, Baccalaureate service.
May 31—Monday, Memorial Day, holiday.
June 2—Wednesday, Commencement Day.
June 9—Wednesday, Second half-year ends.
June 14—Monday, Examinations of the College Entrance Examination Board begin. The dates for filing applications are contained in a circular issued by the Board, Post-office Sub-Station 84, New York, N. Y.
July 6—Tuesday, Sixteenth Summer Session of Columbia University opens.
Aug. 13—Friday, Sixteenth Summer Session of Columbia University closes.
Sept. 13—Monday, Last day for filing applications for entrance or delinquent examinations in September.
Sept. 20—Monday, Entrance examinations and examinations for deficient students begin.
Sept. 22—Wednesday, Registration begins.
Sept. 28—Tuesday, Registration ceases for students previously matriculated. Later applications received only upon payment of an additional fee of \$5.
Sept. 29—Wednesday, First half-year, 27th year, begins.
Registration ceases for students matriculating for the first time. Later applications received only upon payment of an additional fee of \$5.

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